Psychological Bulletin

THE CURRENT SITUATION IN SOCIAL PSYCHOLOGY

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Social psychology not only shares with other psychological departments the common problems of psychology but also has many unique responsibilities of its own. Like general psychology, it must guard its borders, so that only natural phenomena are allowed a place in the field, and at the same time keep its principles and methods significant as well as valid. In addition, if social psychology is to be a genuine division of psychology instead of a mere name, its data must possess characteristics different from those of general psychology. Besides all this, social psychologists, because they are concerned primarily with humanistic phenomena, must develop effective criteria for identifying their data, which lie on that shifting border between psychology and sociology. And, finally, since social psychological phenomena are primarily human, the social psychologist must draw a line between scientific inquiry and the urge to improve the conditions of man and his society.

If these illustrations fairly suggest what a scene of broad and important activity social psychology is, the form of an inquiry into its current condition is likewise suggested. Accordingly, in the present survey I do not plan to index books and articles bearing the social psychological title. On the contrary, my aim is to consider the present intellectual status and trends of the subject as gleaned from recent literature, with a critical and occasionally constructive regard to the fundamental problems facing those who produce this literature.[1]

[1] The citations to literature are in all instances illustrative, and are thus meant to indicate nothing but characteristic tendencies.

THE EXPANDING INTEREST IN SOCIAL PSYCHOLOGY

If any justification is required for surveying the domain of social psychology at this time, we find it in its rapidly growing population and the constantly increasing cultivation of the subject. This freshening of interest is demonstrated by the number of psychologists in the A.P.A. *Yearbook* professing a concern in social psychology and by the array of books and articles published under this title.

Fernberger (**29**) reports that of the Associates listed in the 1937 A.P.A. *Yearbook* 200, or 13%, profess a research interest in social psychology, while 78, or 13% of the Members, place themselves in this category. According to his figures, the rank order of social psychology as a research subject has risen from eighth place in 1918 to sixth in 1927, and to fifth in 1937.

Britt (**15**), whose count of those listing an interest in social psychology also includes those who teach the subject, asserts that 470 Members and Associates, or 22% combined, are interested in this field. Britt further indicates that 259 Members of the American Sociological Society are awake to social psychological issues with an overlapping of only 19 persons who are Members of both the A.P.A. and the A.S.A.

No apology is required for typifying social psychological conditions by the social psychological situation in the United States. In whatever countries the subject may have originated, social psychology today is an American development. Karpf (**44**, p. 87) quotes Geck (**34**, p. vi) as saying in 1928:

"'In the case of Germany it is as yet impossible to speak of social-psychological investigation—although there is a series of works at hand dealing with the subject-matter of social psychology—also foreign works on social psychology are still for the most part unknown.'"

PROBLEMS CONFRONTING THE SOCIAL PSYCHOLOGIST

Because of the increasing number of social psychological students, who, moreover, approach the subject from different angles, there is the greatest diversity of viewpoint concerning the data of social psychology and the methods of investigating them. Not only do sociologists and psychologists contest the social psychological field, but they also mix their data and investigative techniques. Hence, it will greatly facilitate our survey to formulate a series of questions designed to mark off the outstanding problems of social psychology.

Varying Approaches to Social Psychology

(1) Is social psychology a fundamental investigative enterprise or simply a college subject?

(2) Does social psychology require exact limitation and definition of field?

(3) Is social psychology merely a discipline designed to answer questions concerning interesting or striking everyday events?

What Are the Data of Social Psychology?

(1) Is social psychology an independent scientific domain with data and methods of its own?

(2) Are the data of social psychology merely borrowings from the social sciences or from general psychology?

The Divergent Interests in Social Psychology

(1) Is social psychology psychosociology or sociopsychology—that is, a sociological explanatory discipline?

(2) Does anything but a pedagogical interest lead writers on social psychology to duplicate materials of elementary psychological books?

(3) In what sense is social psychology an adjunct to social service?

Cultural Influences on Social Psychology

(1) Can the difficulties and confusions in social psychology be accounted for by various cultural influences?

(2) Did social psychology arise as an enterprise to investigate a specific type of psychological phenomenon or has it evolved haphazardly?

(3) Has the dual sociological and psychological development of social psychology exerted an untoward influence on the latter?

(4) Does social psychology still sustain the effects of its ethnological development and what are these effects?

Social Psychological Influences on Social Psychology

(1) Are some of the unsatisfactory conditions of social psychology traceable to social psychological influences in the form of scientific conventions?

(2) Can we point out the untoward influence of traditional psychological views upon current social psychology?

(3) In what way can social psychology be freed from some of its constricting conventions?

(4) For this purpose are there advantages to be derived from an interbehavioral type of psychology?

Sociology and Psychology

(1) Is social psychology sociology, psychology, a combination of both, or the border line between the two?

(2) Can social psychology be identified with politics, economics, or other studies of collective behavior?

(3) Does the use of the term *behavior* obliterate the differences between psychology and sociology or any other social science?

(4) Are social psychological phenomena simply general psychological phenomena performed in the presence of single persons or groups of persons?

(5) Are social psychological phenomena simply responses to other persons as stimuli?

(6) Does social psychology merely concern itself with the way a child grows to be a member of a particular society?

Biology and Social Psychology

(1) Are social psychological phenomena based upon, or determined by, physiological processes?

(2) In what sense and how far can the nervous system be employed as an explanatory mechanism for social psychological phenomena?

Individual and Social Psychology

(1) Are there distinct criteria for differentiating between individual and social psychological phenomena?

(2) Can a distinction be made between psychological interbehavior on the basis of organic or humanistic correlates?

Individual and Cultural Aspects of Learning, Personality, etc.

(1) Can psychological phenomena be differentiated into general and social on the basis of their origin and modes of operation?

(2) In what sense are learning, personality, child or abnormal psychology, and attitudes social psychological phenomena?

(3) Can social psychology be limited to particular kinds of phenomena—for example, attitudes, traits, or opinions?

Social Psychology and Scientific Method

Science As a Form of Interbehavior.

(1) Is science organized knowledge, agreed-upon description, or operations upon phenomena?

Isolating Data.

(1) Can scientific enterprises begin or prosper without unique data or fundamental problems?

Observational Procedures.

(1) Are social psychological phenomena experimental, or are experimental methods used as criteria of what social psychology is?

(2) Do recent developments in psychology reverse Wundt's conception of social psychology as the nonexperimental counterpart of physiological psychology?

(3) Does the experimental method include casual observation, questionnaire, and pencil-and-paper techniques?

Constructing Descriptions.

(1) In what sense are scientific descriptions dependent upon the phenomena described?

(2) Are scientific descriptions measurements, and how are the two related?

(3) Does social psychology yield fundamental scientific or merely casual descriptions?

Constructing Abstractions.

(1) Are adequate abstractions possible for social psychology?

(2) Is it permissible to borrow abstractions for social psychology from other disciplines?

(3) Are the response- and stimulus-function abstractions serviceable in social psychology?

Formulating Generalizations.

(1) Are laws of social psychology possible?

(2) Must generalizations in social psychology be derived from the data or may they be imposed upon them?

Interpreting Results.

(1) How important is the construction of theories and principles in social psychology?

(2) Is the aversion to theory merely a neglect and lack of control of theory?

(3) Is social psychological theory merely the application of general psychological theory to social psychological phenomena?

VARYING APPROACHES TO SOCIAL PSYCHOLOGY

A striking tendency in social psychological literature is the impatience expressed with any attempt to attain an exact limitation and definition of the subject. Britt (16), for example, declares that, while he realizes the desirability of satisfactory definitions and the importance of sound historical orientation, the really important thing is to " go ahead and make empirical investigations " (p. 462).

In the article referred to, Britt makes it plain that he approaches social psychology with a regard to the college student. He is influenced by his observation that students are bored by attempts to clarify one's viewpoint, the history of the subject, and such abstruse problems as the existence of a group mind or the validity of a hedonistic principle. He finds, rather, that students are excited over problems they are themselves facing: " the detection of propaganda," " the matter of sex adjustment and marriage," " the place of church

and religion in our society," "to what extent newspapers print true news," etc.

Possibly no one would seriously question whether the nature of social psychology should be determined by what college students regard as important problems were this not a rather general approach. For example, at an earlier date, Cantril (19) asserted that the social psychologist should not be embarrassed when called upon by the layman for answers to such questions as: "Why do fads like jig-saw puzzles, anagrams, short skirts, or women's capes come in cycles?" "Why do people laugh at a certain cartoon, comic strips, or jokes?"

In the latest social psychology book to come to hand Katz and Schanck (45) begin with the plea that social psychology should not begin at an abstract and generalized level, but with the social phenomena of everyday life. Accordingly, they entitle the first of the 4 sections of their book "The Social World of the Man on the Street." Although they express their adoration of experimental psychology, the content of not only this section but of the entire book consists primarily of sociological raw materials.

The psychology of language teaches us that, formally considered, there has never been a bad argument. In other words, the linguistic pattern of the arguer may be excellent even when he refers to a straw man. All the writers quoted are certainly justified in their attitude when they concern themselves with the futility of formal discussion. Cantril (19, p. 297) quotes Murchison (62, VII):

"'The entire field of social psychology will cease to exist even by the end of this generation unless its subject-matter can consist of more important things than hypotheses concerning natural behavior or of mere verbal definitions.'"

Two questions are at once suggested. First, do writers on social psychology actually indulge in such perversities? Despite all the insistence upon particular points of view and subject matter, it is certainly not true that writers have averted their gaze from concrete facts of social life.

Secondly, how are problems solved? By empirical (haphazard?) investigation, regardless of problems, postulates, techniques, and interpretations? It is obvious to everyone that a scientist cannot persist in doing busy work without regard to what it is. A scientist is differentiated from a nonscientist on the basis precisely that he can isolate a significant problem calling for a novel and important answer. It is a cardinal principle that a scientist be devoted as

fully as possible to his particular problem and subject matter no matter how urgent or necessitous the call of those requiring answers to their questions. This means that the scientist must have insight into the event matrix from which he abstracts his particular phenomena and the capacity to form significant hypotheses as well as to decide what techniques are available and useful for solving the problem. Impetuosity and compliance lead to undirected trial and error, not to the deliberate methodology of science.

Granted that social psychological phenomena are embedded in and emerge from everyday phenomena, what follows? The social psychologist as a scientist should not presume to have ready answers for such questions as the man in the street asks. Social psychology as a science is a serious enterprise concerned with the nature and occurrence of a type of psychological event. It is in no sense a simple question-answering undertaking. Aside from the fact that it cannot have wholesale answers to questions concerning complex phenomena, neither, as a specialization of science, can it possibly answer any questions concerning aspects of phenomena which it does not investigate.

Howsoever deductive we regard physics to be, historically it, too, began with the crude data of everyday life. Yet it is clear that it only assumed its present status by achieving methods and principles far removed from, though continuous with, everyday occurrences. It was by this route that it arrived at its laws, and in no other way could it attain authority concerning everyday phenomena.

Even though the problems of social psychology arise out of such everyday questions as we have abstracted from the long list which Cantril provides, can we expect the social psychologist to supply the answers? Certainly the social psychologist must participate in research leading to the solution of such problems, but we must note that, on the one hand, the simple questions must be transformed into a set of fundamental scientific problems, and that, on the other, social psychology is only one form of study required for the solution of such problems. Social psychology without general psychology, sociology, economics, history, anthropology, and other social and natural sciences cannot explain fads, wars, attitudes, economic peaks and troughs, etc. As Kantor (40) has indicated, social psychological phenomena are inextricably interrelated with all sorts of humanistic and natural phenomena. Scientific experience teaches that the success of the social psychologist is directly proportional to the persistence with which he pursues the investigation

of his own data in coöperation with the other scientists who follow the same course.

Not that it is illegitimate for a particular scientist to step over the boundary of his own department. The phenomena of all the sciences are only items in a homogeneous continuum—that is, an event series. Furthermore, in principle all sciences are alike—investigative enterprises—and thus hyphenated (physical chemistry, biochemistry, astrophysics, physiological psychology, etc.), but this does not warrant improper substitution and confusion of data. Because it is necessary for students of particular phenomena to consider bordering facts, they cannot confuse the original factual matrix with their own specialized data or confound their own data with those of other workers.

Can we, then, escape the conclusion that social psychology is, or ought to be, a definite scientific enterprise and therefore not only operate with the technical methods of science, but also adapt those methods to its particular content or data?

What Are the Data of Social Psychology?

More crucial for social psychology than the varying approaches is the utter chaos with respect to subject matter. Indeed, in this regard, conditions could not be worse. Yet if social psychology is a discipline independent enough to deserve a name, it can only be so because it has distinctive data of its own. The first task of the scientist is to isolate a particular type of phenomenon for study, even though the subject of his immediate attack must be specific instances of it. Only by such a selection of material can we focus our investigations.

What, then, are the data of social psychology? From the psychologist we may expect the answer that they are psychological phenomena of a particular sort; but what we actually find in the literature is a farrago of materials without any semblance of order or parallelism. Smoke (74) has excellently summed up the situation in the following words:

"The social psychologies written by such outstanding men as Bogardus, Allport, McDougall, Young, Kantor, and Dunlap are so unlike one another that it would be entirely possible for a reader to understand any one of these volumes quite thoroughly and yet be painfully ignorant of much (or even of almost all) of the content of the others" (p. 538).

The continuous deluge of articles and books bearing social psychological titles manifests these tremendous divergences concerning subject matter by featuring such different materials as: (1) the psychic powers of psychological processes which explain the nature of society (**57, 68, 76**) ; (2) the development of the self (**60**) ; (3) the comparison of learning alone at home or in the presence of others (**1**) ; (4) political action (**62**) ; (5) the origin and propagation of rumors (**33**) ; (6) industrial coöperation and efficiency (**32**) ; etc.

In suggesting the great variability of content in social psychological books Smoke (**74**) has tabulated the percentages of the following items in 14 volumes bearing dates to 1934 :

Attitude(s)	Imitation(s)	Nervous System
Audience(s)	Inferiority	Prejudice(s)
Censorship	Instinct(s)	Propaganda
Character	Intelligence	Public Opinion
Crowd(s)	Intro-extraversion	Reflex(es)
Custom(s)	Language(s)	Religion
Emotion(s)	Laughter	Rivalry
Family	Leadership	Sublimation
Fashion(s)	Marriage	Suggestion
Gesture(s)	Morale	Sympathy
Habit(s)		Temperament(s)

Even this long list contains only a selection of topics, and when we take into account the volumes published after Smoke's paper we find elaborate treatments of the following additional subjects :

Aptitudes	Economic Conditions	Pathology
Art	Learning	Progress
Child Psychology	Motivation	Social Institutions
Desires		Social Organization

Such topic lists suggest the lack of a rigid or significant criterion of selection. We have, rather, a mixture of general psychology, social psychology, sociology, economics, anthropology, and neurology. Doubtless this anarchical condition arises from the fact that the term *social psychology* is used by different kinds of students to refer to different kinds of phenomena. Even in such an acquisitive society as ours, the psychologist may not claim sole title to the term which has been as much the property of sociologists as of psychologists. Nevertheless, it is an inescapable inference that the psychologist should strive toward the isolation of a set of data of his own and concentrate his studies upon them.

THE DIVERGENT INTERESTS IN SOCIAL PSYCHOLOGY

Granting that the confused condition of social psychology is unwholesome and calls for drastic emendation, it is well to consider some etiological contributions to that status. Accordingly, in this and the 2 succeeding sections we examine such contributing factors as can be found in the divergency of interest and in the cultural and social psychological influences on social psychology.

The Sociological Interest. Contemporary social psychologists are strongly indebted to sociologists for developing an interest in the subject. Paradoxically enough, the present expansive development of social psychology can be traced back to the sociologist's preoccupation with the psychic factors of civilization (44). It was inevitable, of course, that with his particular background the psychologist should not arrive at the same goal as the sociologist. Yet the commingling of interests could not have resulted in other than a confusion of data. If there is a difference between sociology and psychology—and who can doubt it?—we must learn how to define the different domains of work and their overlapping.

The Pedagogical Interest. The indiscriminate content of social psychology books is likewise traceable to the pursuit of a pedagogical interest. Such books are frequently put together with a view to the needs of the elementary student. Large portions of general psychological materials are presented as a basis of review, though such material can be connected with the phenomena of social psychology in no closer a way than by invoking the principle of the general interrelatedness of phenomena. An examination of the textbooks issued since Smoke's article reveals the ample proportion of sociological, general psychological, political, and social values, and other materials extraneous to a well-defined and integrated study.

The Reforming Interest. Still another concern leading to the chaotic character of social psychological books is that of social reform. Generous sections of recent books are devoted to propaganda in the interest of bettering society. Social psychology, in other words, becomes assimilated to the efforts to improve the political, economic, and social welfare of persons and groups as well as to prevent war.

It cannot be denied that much of this social-service writing is very agreeable to liberal-minded people, but we may well raise the question whether, as social psychologists, we are interested primarily in the improvement of society or in a scientific analysis of a particular kind of psychological behavior. It may be conceded that

science should be put to work, but it is still questionable whether any scientific principles, be they applicable or not, can be achieved by the constant emphasis of some practical and immediate accomplishment. When we foster an interest in social or political reform we are prone to let the end justify the means. The result frequently is that books are filled with all sorts of material, and, worse, on the plea that strict selection and definition of subject matter are of no scientific importance.

Is the crying need for human improvement an argument for diverting social psychology into the channels of social service? It is only natural that the student of human behavior should entertain the hope that the ascertainment of verified principles will be instrumental in correcting or alleviating our social, economic, and political maladjustments. Yet the question remains: Is any science effectively fostered by the need to accomplish some particular result, even though scientific principles may be derived incidentally from, and as, by-products of even nonscientific enterprises? Despite the truth that our science is to a great extent an outgrowth from our industrial life, it is still questionable whether systematic developments of science are cultivated by making natural science an arm of industry or social science a handmaiden of social reform.

Who can doubt that effective conditions for scientific work include freedom of the worker from the importunities of social reformers no less than from technical and general cultural prejudices? Certainly, it is not proper for psychologists to overlook what happens to science when it is geared to the supposed needs and projected purposes of a state or a society.

For all that, the development of social psychology indicates repeated attempts to force it into the service of social improvement. An early manifestation was the assertion that social psychology is the explanatory key to the nature of society. In one of the most recent textbooks, Brown (17) condemns evaluative concepts; yet the tenor of his whole book, bearing the title *Psychology and the social order,* militates for what he regards as desirable social changes. This writer justifies himself by the disarming and plausible view that science arises and exists as one of the ways in which man tries to improve his lot on earth.

Notice that we are not raising the issue of practical and theoretical science, for certainly the line between is a vanishing one. Rather, the issue is between effective and ineffective science. The

question is: What is the technique of scientific accomplishment? Of the physicist Michelson [2] it is said that when he finished a piece of work he expressed his thanks that no one could use it. Certainly, this scientist did not believe in withdrawing the fruits of science from the practical affairs of life. His own work as a naval officer in the War not only belies such an attitude, but belies it ironically. What he and others who foster the interests of science and its applications insist upon is freedom from undue and hampering influences.

The program of social psychology, then, is not different from that of any other science: to achieve an adequate and effective orientation in a particular domain of facts. Not only must social psychology have a definite field in which to work, but also we must set up an adequate set of postulates to guide us in our investigations. How the investigation will proceed in detail will depend, of course, upon the actual data at hand and the available investigative techniques.

CULTURAL INFLUENCES ON SOCIAL PSYCHOLOGY

One of the well-established principles of social science is that scientific ideas and techniques are integral parts of a general cultural complex. Hence, in order to understand a large social psychological situation or just an article or book, we need to study it against its cultural and historical background. An analysis of social psychological difficulties suggests that we can find at least 3 of their sources in the cultural auspices of its development.

The first is the influence of historical continuity upon present social psychological development. Social psychology today still bears the stamp of its Folk-study origins—hence the emphasis upon ethnic, national, crowd, mob, and other group phenomena. To a great extent social psychology is still influenced by the fact that Lazarus and Steinthal set themselves the goal of accounting for such group phenomena as language, mythology, art, science, politics, etc. by psychological principles. These writers, assuming that an individual psychology could not explain group phenomena, initiated a tradition of superindividual or group minds which still persists (58), or at least a tradition that social psychology has to do with psychological aspects of community life. Undoubtedly, then, the present confu-

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[2] Bell (12, p. 75) tells a similar tale about the mathematician H. J. S. Smith.

sion of social psychological aims and mixture of data and methods can be traced back to the historical continuity factor.

Secondly, because of its origin and development social psychology is inclined toward sociological or humanistic attitudes. Thus arose the psychosociological trend which made social psychology the study of psychic forces or psychological determiners of societies. This social psychological trend consists of nothing more than: (1) a confluence of Hegelian dialectic and Darwinian genetics as represented in Baldwin (9); and (2) an adaptation by Ross (70) of the French sociology of imitation and suggestion as sociological forces.

The sociological trend of social psychology maintains itself unendingly. Despite the development of experimental, physiological, behavioral, and even animal psychology, with their emphasis upon the action of individual organisms, social psychology is still mainly concerned with the relationship of societal groups and individuals. Even when psychology is defined as responses to stimuli, social psychology is regarded as a distinct discipline merely by taking other persons—that is, group members—as the stimuli. It is even regarded as a great achievement to synthesize [*sic*] psychology and sociology (49). There seems no question that the sociological background of social psychology accounts for the preoccupation with everyday facts and for the belief that political science and psychology are one (2, 39).

In the third place, many of the vagaries and difficulties of social psychology are traceable to its deep impregnation with traditional dualism. The sharp line that continues to be drawn between the so-called natural and social sciences *(die Natur- und Geisteswissenschaften)* may be traced back to Wundt's great influence upon social psychology. Keeping in mind the cultural background of scientific work, we do not find it paradoxical that Wundt (79, 80, 81), the physiologist and founder of psychological laboratories, was not willing to allow autonomy to humanistic phenomena, but reduced them to content of consciousness. The thoroughgoing dualistic influence upon him determined him to believe that, although it could not be denied that social psychology was a science, there was, nevertheless, a sharp line between social and general psychology. General psychology or physiological psychology, being intimately related with organic or neural functions, appeared to Wundt to be more naturalistic and subject to experimental method. Social psychology, on the other hand, was doomed to be primarily nonexperimental.

Thus, by making social psychology *(Völkerpsychologie)* the

domain of group minds or social consciousness, which either creates, is identical with, or parallels the so-called material culture, social psychology is tied up with the social sciences in a way which is helpful to neither.

Even when psychology is made more objective than is the case with Wundt there is a tendency to resolve human phenomena into psychological actions. An instance is Allport's (3) declaration that " the terms university, industry, church, or state refer to activities or habits which individuals in certain relationships perform." The referents of these terms are " concepts," and a peculiar argument used to support his notion is that if you take away *all* individuals and their actions from an institution nothing is left.

Certainly, this basically mentalistic idea (since human actions are geared to mentality, consciousness, purpose, etc.) prevents the appreciation of humanistic phenomena as complexes of many kinds of things and activities. At the very least, it prevents us from turning from large and universal entities toward specific phenomena, toward particular events which are the pivots about which all science turns. A university as a genuine cultural object in which thousands of stimulus functions inhere, even for a single person, can hardly be denied reality in comparison with a " rock, tree, acid, water, fish and man." It is patent, then, that the maintenance of the dualistic tradition results in the indiscriminate commingling of psychological, physiological, and sociological data.

SOCIAL PSYCHOLOGICAL INFLUENCES ON SOCIAL PSYCHOLOGY

If much of the unsatisfactory condition of contemporary social psychology can be traced to the continued influence of tradition upon the workers in the field, we can generalize this fact by saying that social psychologists are blind to the principles of their science. In other words, their interbehavior with phenomena is guided more by custom than by what the operations themselves dictate.

A definite polarity marks the relations between scientific and social psychological behavior. The latter consists of shared or conforming interbehavior, while scientific behavior, by its very nature, is idiosyncratic, and, from the standpoint of convention, nonconforming. As the 2 preceding sections indicate, social psychologists have become the victims of many conventional ideas and intellectual influences, although social psychology itself teaches that they should be resisted or avoided altogether.

Admittedly, scientific activities, like all others, inevitably bear the stamp of their continuity with other social phenomena. But, on the other hand, it is just as true that any sort ôf progressive scientific work represents a freeing of the scientist from this grip of tradition. Indeed it is typical of scientific work that its progress depends upon a reaction against tradition. Though we believe that Einstein's relativity physics is continuous with Newtonian dynamics, it would have neither content nor significance unless it were an outgrowth of, or departure from, the former. It is in this manner that the structure of science incorporates prior findings. Scientific advancement, fortunately, guarantees us that the scientist has the possibility of rejecting or accepting certain prior conclusions.

How can the scientist free himself, if ever so gradually, from the incubus of tradition? And why, above all, is he the most privileged in this regard? Since scientific problems concern the existence or operation of some phenomenon, it is a question, then, whether he will be relatively more influenced by his contact with phenomena or by traditional views about them. Will he, in other words, build up his descriptions on the basis of his operations with events, or will he be led to regard his operations, whether wittingly or unwittingly, as pieces in the jigsaw puzzle of tradition?

The ability to control traditions can be achieved by studying them. Certainly, the social psychologist who is professionally a student of the influence of conventional ideas upon scientific or other sorts of thinking should profit by his own studies. When he does, he is able to concentrate his interests and operations upon the interbehavior of organisms with things and other organisms with a minimum of regard for historical pronouncements.

The result is that social psychology is recognized as a definite investigative enterprise with data and techniques of its own. These data may be described as the particular ways in which persons interbehave with other persons and things on the basis of a series of prior contacts with those things. In such contacts both the persons and objects perform mutually and reciprocally. While the persons react, the objects stimulate. What the individuals and objects do respectively consists of specific functions of their past interbehavior under specific surrounding conditions. In this sense, the individual's behavior properties and potentialities are not functions of unknown neural events or unknowable psychic factors, nor of indiscriminate energies; rather, they are functions of the organism's past contacts

with specific things. Similarly, the stimulating actions of objects called 'stimulus functions' are developed in the same previous contacts with particular individuals. In social psychological situations there is a commonness or similarity in the types of interbehavior in different organisms because of common sorts of conditions. Actually, this commonness of condition reaches back to common ethnic, economic, or general civilizational circumstances.

Our survey of the social psychological field reveals, then: (a) a number of unsatisfactory conditions, with (b) suggestions to account for them, and (c) some indications concerning the possibility of overcoming these conditions. For the most part, our study so far pertains to books and the more general characteristics of the field. Before proceeding to an examination of the more specialized problems of data, methods, and principles we will summarize the results so far in the following propositions:

(1) Social psychology is a serious scientific study and not merely a pedagogical discipline, a survey of the events of everyday social life, or an adjunct of social service.

(2) The chaos of approaches and mixtures of data can be ascribed to a series of definite humanistic conditions which engendered social psychology.

(3) The existing social psychological situation can be improved by removing some of the obstructing general and local traditions.

(4) Basic to such an improvement is the adoption of a definite naturalistic social psychology.

SOCIAL PSYCHOLOGY AND SOCIOLOGY

We have already referred to the double ownership of the term *social psychology*. It is only natural that the sociological proprietors carry on a different business than the psychologists under the same sign. Because of this fact and the no less important one that the enterprises overlap, it is necessary to separate sociology from social psychology. Only in this way can we make certain that for the social psychologist psychology will be psychology and not something else. Now this is not to deny that the sociologist might find the term *social psychology* a useful one to map out a distinct field of work for himself. Certainly, it would be legitimate for him to make a place for the psychological phenomena which constitute aspects of social life, and especially if he approached psychological phenomena with an expert and critical attitude. That this is seldom the case

makes it all the more necessary for the psychologist to keep clear concerning the nature of social psychological phenomena.

All human psychological phenomena have a definite and inevitable background in society. Consequently, the data of social psychology are intricately interrelated with the data of anthropology, sociology, politics, and economics. From this fact 2 different departures may be made. On the one hand, the psychologist may indiscriminately take over societal facts, and, despite their immiscibility with psychological phenomena, use them to build up a social psychology. The psychologist may support such procedure by pointing to the sociologist, who essays the assimilation of psychological materials into sociological tissues though this mutual borrowing naturally solves no problem.

On the other hand, the psychologist may regard it as an imperative necessity to isolate social psychological data from other sorts. Though this isolating enterprise involves some arbitrariness, there can be no science of social psychology unless it is done. As it happens, the social psychologist need have no more difficulty in isolating his data than the biologist in isolating a physiological, embryological, anatomical, or ecological datum, or than the chemist in separating his facts from the industrial, geological, or physical phenomena with which they are intimately connected. His facility, of course, depends upon his proficiency, contempered with his general psychological attitude.

If he is an objective psychologist he concerns himself with the specific activities of individuals with particular stimulus objects. This fact provides an immediate touchstone for differentiating psychological from other kinds of phenomena. It is obviously immaterial whether psychological responses constitute adaptations to things, persons, sociological or economic conditions, or groups as stimulus objects.

Above all, the objective psychologist is not misled by the use of the term ' behavior.' We can isolate psychological interbehavior even though the political scientist defines politics as the study of political behavior and the sociologist defines society as the study of interactions of persons. Note that the physicist likewise speaks of the behavior of rays, the chemist of the behavior of his reagents. All social scientists in their proper rôles are interested in groups of people, even when they describe their phenomena as interrelations of persons and not as specific response and stimulus functions, which must be the method of the social psychologist.

The assiduous application of our criterion is necessary only when considering the behavioral point of intersection between sociology and psychology. The psychologist obviously is limited to behavior in his particular sense of that term. The sociologist, on the other hand, as the student of society, is interested in many other things besides behavior, even when behavior means mass action. The description of the organization and the operation of a given set of people involves a multitude of facts, such as the health, ways of living, forms of work and government, coexistence and commerce with neighboring and more distant groups. Then there are all the objects—tools, techniques, and products—for work, shelter, amusement, art, and worship. No one, of course, could confuse such inevitable societal impedimenta, howsoever closely they entail psychological performances, with those performances, and especially when we consider that psychological behavior consists of technical stimulus and response functions.

A striking consequence of the mixture of psychological and sociological phenomena is the fallacy of dissipating groups into activities of individuals. Apparently this fallacy arose in the following way. With the clearing away of the smoke resulting from the war against the social or group mind, it became generally appreciated that there was nothing more substantial than smoke to fight about. The victory, however, was interpreted as a destruction of groups also, so that by reducing group phenomena to actions of individuals the fields of sociology and psychology became one.

Nothing is clearer, however, than that actions of individuals taken in this way are neither (1) strictly speaking, individual or social psychological phenomena, nor (2) sociological behavior—that is, collective or mass action (48). Psychological phenomena are not merely acts of persons but very definite stimulus and response functions. On the other hand, to be sociological, actions of persons must be conjoined or concerted performances of mobs, crowds, committees, nations, clubs, or voluntary associations.

" The group . . . is a phenomenon which exists in the behavior of individuals in mutual interrelation, but not in individuals separate from this interrelation " (54, p. 161).

From the psychological side, a far-reaching objection is that not only are stimulus functions of objects not considered, but the objects themselves are left out of account.

Psychologists, as students of the psychological activity of persons

who are always and inevitably members of sociological groups, obviously need not apologize for being interested in sociological phenomena, inasmuch as they would be so much the poorer in proportion to their neglect. Whether this preoccupation is beneficial or harmful depends upon what they do with the facts. Specifically, psychologists may merely entangle themselves with superficial sociological data or attempt to discover what effects are exerted on·genuinely psychological interbehavior by the connection of individuals with particular phases of society. As the literature indicates, an undesirable sociological influence has resulted in a series of unsatisfactory social psychological trends, 3 of which we will consider briefly.

(1) *The Behavior-in-Groups Trend.* Impressed by the sociological fact that all human psychological activities occur under societal auspices, a number of scholars have ranged themselves in a distribution from the extreme that all psychology is social psychology (10) to the lesser view that social psychology is the study of crowd or other group phenomena, such as audiences, publics, etc. The least damaging criticism is that even when responses of persons are studied, hardly more than gross sociological materials are brought to view. A more serious objection arises when group auspices are made into a social psychological principle. Again, this trend not only suggests no plausible differentiating factor between psychological actions, but conceals the necessity for searching for adequate individual and social psychological principles.

(2) *Reaction-to-Persons Trend.* To sociological influences may also be traced the idea that social psychology studies responses to persons. Here a peculiar emphasis is placed upon interpersonal activities. Unfortunately, there is no valid principle for differentiating between a person and a thing as a stimulus object. Moreover, this trend is an obstacle to seeing that responses to persons may be nonsocial, while responses to objects may be fully social. It seems entirely permissible, of course, to use the name 'social psychology' for a set of activities which involve "no radically new concepts, no principles essentially additional to those applying to non-social situations," as Dashiell (21) does, on the plea that on this basis he brings together certain experimental data. Yet the question remains whether this type of procedure is not the source of a great deal of confusion in psychology.

(3) *The Socialization Trend.* Of the 3 trends we are now considering, the socialization view has been the most clearly influenced

by sociology. Here again, an obvious fact has been elevated into a fundamental technical principle. This trend may be traced back to the earliest folk-psychologists, who stressed the fact that individuals inevitably speak the language of the society into which they are born. This fact was made into the principle that the mind of an individual is derived from the group mind. As the following list indicates, not only sociological but psychological authors have adopted this idea and have described social psychology as the study of how individuals become members of society by taking on the personality traits of particular groups. See, for example, Folsom (31), Brown (18), LaPiere and Farnsworth (49), Krueger and Reckless (47), Mead (60), and Murphy, Murphy, and Newcomb (64).

The obvious difficulty here is that social psychology becomes a generalized set of propositions without the necessary penetration to the fundamentals of the subject. However true it may be that the personality or psychological equipment of the individual is a function of the society in which he lives, this truth is hardly illuminating to those who are interested in the technical developments of psychological phenomena. Certainly, the psychologist cannot operate with an individual on the one hand and a group on the other, even if the group (society) is subdivided into numerous smaller groups. Psychological phenomena are very specific forms of interbehavior, and it must not be overlooked that no 2 individuals are alike, no matter how much they live under common sociological conditions.

Here we face the question whether, in moving away from everyday facts to sociological principles, social psychology has made sufficient headway. The question is: How far from the individual may psychologists go? Though an emphasis upon individual phenomena is a prominent feature of some psychological writing, that turn, too, has its pitfall, as we shall see in the following section.

BIOLOGY AND SOCIAL PSYCHOLOGY

Even those who insist that social psychology treats of the way society imposes psychological characteristics upon individuals likewise paradoxically localize the causes of such characteristics in one's biological make-up. This means nothing less than that psychologists are at one and the same time conditioned by the dualistic tradition and by the sociological or group influence. But there is this difference: Those social psychologists who stress the group idea minimize the biological factors, while those who tend toward the notion that

social psychology must stress the individual maximize the biological influence.

On the basis that man is an animal, social psychologists commit the fallacy of propinquity, and assert forthwith that man's bio-chemistry and anatomy are projected into his social psychological behavior. To a great extent this belief signalizes the ideational lag that unless psychological phenomena are anchored in organic proc-esses they float off in the great psychic ocean. Accordingly, we find in social psychological books such chapters and section headings as " The Organic Bases of Behavior " (**14**), " Visceral Social Psy-chology " (**66**), " The Psycho-social Significance of the Nervous System " (**69**), " The Biology of Motives " (**63, 64**), " The Physio-logical and Psychological Foundations of Social Behavior " (**45**), and " Physiological Basis of Human Behavior " (**1**). Whether such materials are presented as a badge of scientific respectability by socio-logical writers or because psychologists draw upon a particular writer or lock step in a tradition, this flaunting of biology is nothing but a concession to the dualistic tradition.

Writers on social psychology do not, mark you, merely point out that biological phenomena participate in social psychological events, nor even indicate that they place limits upon such events (food habits cannot extend to poisonous substances) or provide possibilities (only handed animals could invent pianos). On the contrary, they attempt to explain enormously complex and specific interbehavior by bio-logical principles. In this sense, social psychology becomes ostensibly a study of the physiological basis of complex human behavior such as feelings, emotions, family adjustments, language development, motivation, etc.

That this reference to biological materials is only a traditional device is illustrated in one of the books cited (**45**). The authors declare:

" Physiology tells us only that man can be conditioned to various stimuli. It has little to say about the specific habits which specific men have built up in relation to particular aspects of their surroundings " (p. 237).

Yet they look, admittedly without success, to physiology as an explanation of rivalry (p. 281) and believe they can explain an individual's work in the presence of other persons by additional nerve impulses being discharged in open pathways (p. 295). As a *tour de force* they assert that a knowledge of the physiology of

the nervous system is necessary in social psychology because the nervous system constitutes the parts of which the complex social-psychological action wholes are put together (p. 238). The dodge here is that scientific phenomena must always be reduced to lower and more fundamental levels. The fallacy underlying this type of thinking has been exposed by numerous writers (35, 41, 51).

Tradition, and tradition alone, demands physiological descriptions and explanations in social psychology. Again, it is only to be expected that a treatise on social psychology written by a physician and psychiatrist (66) should remind us that an organism comprises a brain, a circulatory system, and other viscera. But what is the significance of these facts that everyone knows? Does not the summary which the writer (40) has made of the various interrelations between biological and general psychological phenomena indicate that biological data cannot be made into determiners or explanatory bases for either individual or social psychological interbehavior?

Powerful still, however, is the folk thought that at least the nervous system is an explanatory mechanism. This is not the place to discuss the significance of the nervous system for social psychological phenomena, but we cannot forbear quoting from the most recent book on hearing (75), which indicates our complete inability to explain even elementary discrimination by neural factors.

" The problem of the psycho-physiology of sensation is partly, but not completely, solved by such an analysis in terms of nerve impulses. The function of nerve-fibres is purely that of conduction . . . The centers seem to code their messages in a new language and we are still seeking the clue to its translation " (p. 307).

Such a quotation suggests that possibly even physiological psychology could advance more rapidly if we did not follow a venerable tradition of translating sounds into sensations (psychic qualities) which depend upon the operation of neural processes for their existence. If, perchance, this suggestion does carry some weight for physiological psychology, this weight would be enormously increased for social psychology. Whatever may be the case in physiological psychology, it is certain that the constant injection of biological materials into social psychology exacerbates the myopia that overlooks the fact that social psychological events are autonomous phenomena occurring in their own right and, moreover, constitute specific forms of interbehavior independent of invariably participating biological factors.

Is there not sufficient evidence that individuals of the most diverse biological characteristics (anatomical organization, color, and sex) build up and perform common responses to institutional stimuli? In other words, social psychological interbehavior constitutes activities that are functions of specific culturalization processes—developments within certain humanistic situations without regard to the specific biological characteristics of the persons concerned. That these organisms are members of a common human species reinforces the principle rather than weakens it. On the other hand, individuals of the closest resemblance biologically (monozygotes) are known to take on extremely varied behavior traits, while the same biological individuals successively and simultaneously are differently culturalized.

INDIVIDUAL AND SOCIAL PSYCHOLOGY

Despite much confusion in social psychological writings concerning the relationship of sociological and psychological phenomena, there is discernible the commendable insistence that social psychology must be concerned with the activities of individuals. We have already referred to the extreme view that groups (societies, nations, etc.) are reduced to the interbehavior of individuals. To diverge from the belief that either social or individual psychology is the study of persons or organisms inevitably leads one to metaphysical notions. Moreover, no study of collective behavior can be anything but a statistical organization of particular instances of individual psychological interbehavior.

But now an important and serious psychological question arises: What is the difference between a general or individual and a social psychological phenomenon? With all the amassing of psychological books and articles there still seems to be no satisfactory solution of this question. Possibly the separation of social from individual psychology is even more difficult than the isolation of psychological from sociological phenomena. What gives added poignancy to the situation is that by far most of the behavior of persons is social psychological. The writer does not hesitate to estimate that, taken by and large, 90% of all psychological interbehavior is cultural or social in character. What is required, then, is a workable distinction between the 2 kinds of interbehavior. We have already seen that the 3 most popular suggestions—namely, (1) the behavior of persons in groups, (2) the behavior of individuals to other persons as stimuli, and (3) the traits impressed by society—are extremely faulty.

Fortunately, the obstacles here are not insuperable. It is possible to keep psychology clear from sociology or anthropology and still differentiate between the various forms of psychological interbehavior. Beginning with actual observation, we may clearly distinguish between 3 distinct types of psychological phenomena: chiefly, universal, idiosyncratic, and cultural behavior.

Universal Behavior. This term covers activities in which the response-stimulus functions are universally distributed, primarily because they operate upon a natural basis. Take a pain reflex as an example. Here the response function is determined by the individual's biological character and the natural properties of the pain-producing object. In a sense we may regard this as the closest psychological phenomenon to the biological activities, although in actual performance such interbehaviors are conditioned by distinctively human situations. For example, in a human setting the individual may partially inhibit the response—that is, modify the intensity with which it occurs, and in general the jerk response may be integrated with a larger response pattern to include vocal expletives.

Idiosyncratic Behavior. In this type of interbehavior the particular stimulus function is attributed to the object by the individual himself, regardless of both the object's natural properties and the way other individuals react to it. On the side of the response function the particular way of interbehaving again depends upon the individual's personal development without any definite influence of convention. An effective example is the way an individual interbehaves with, say, a snapping dog on the basis of his own particular experience with it. Though the great gamut of so-called abnormal behavior furnishes innumerable illustrations of idiosyncratic activities, such sources are not the exclusive ones. Every person's behavior equipment, upon analysis, reveals some of these individual forms of reaction systems. When we turn to the creative artist, original scientist, or prolific inventor, we find a large number of such unique forms of action.

Cultural Behavior. The inevitable living-together of human individuals powerfully influences the ways in which they interbehave with stimulus objects. For the most part, persons perform responses according to ways instituted by the social psychological groups of which they are members. In other words, stimulus objects become endowed or invested with certain stimulus functions—for example, those correlated with response functions of calling them by par-

ticular names, making use of them in certain ways, etc. On the response-function side we have the specific adjustmental modes common to particular sets of people—for instance, modes of pronunciation, manipulation, believing, feeling, etc. Such forms of interbehavior we distinguish as cultural. They develop when the individual cannot build up his own types of actions, but rather has ways of interbehaving thrust upon him.

Despite the fact that social psychological phenomena are in their origin, existence, and operation functions of interrelations of individuals, they are not sociological phenomena. Notice, first, that we are not dealing with collective behavior in the sense of reading newspapers or particular dailies, buying cosmetics or certain kinds of such commodities, attending motion pictures or certain kinds of motion pictures, as the sociological writers on collective behavior describe such action. Rather, the psychologist deals with common, shared responses to institutional stimuli. We repeat: The psychologist is concerned with conformity stimulus and response functions and not simply with sociologically similar actions of individuals—that is, behavior grouped into sociological statistics.

Again, a group for a psychologist is not a set of people arranged in sociological classes. Instead, it signifies for him a set of common stimulus and response functions. Since the response functions constitute acts of persons, naturally we are also concerned with sets of persons, but only because of sharing certain reaction systems. Now this is an altogether different phenomenon from membership in a national, occupational, economic, or military group or participation in a pattern of culture. A social psychological group may consist of only 2 individuals as in the case of 2 children who develop their own language. Group participation means only the sharing of a single reaction system or trait. In this sense, certain Frenchmen may belong to more groups with certain Americans than with other Frenchmen. Though the distinctions necessarily made here may be difficult because of the thorough interpenetration of data, they can and must be made.

We offer one more instance. Socialization is not for the psychologist, as it is for the sociologist, a means of assimilating an individual to a sociological group, but rather a person's technique of developing a particular type of response function in connection with an established or instituted stimulus function of an object. In any sociological group or subgroup, such social psychological groups

must be duplicated an indefinitely large number of times. It is this intricate set of processes in conjunction with innumerable human circumstances which results in the sociologist's culturalization, though the psychologist must never lose sight of individual differences. The writer endorses May's (56) statement: " It is only recently that social psychology has recognized that the study of individual differences constitutes its most valuable data " (p. 783). This statement, however, has 2 meanings. For May it apparently means that social psychology must absorb so-called differential psychology in order to add it to the sociological conception of the individual as an " integral " in a community. In this he follows Ogden (67), who is interested in making the group prior to individuals by making the latter integrals rather than integers. We prefer to interpret the statement to mean that social psychology must deal with specific responses to specific stimuli, while we leave the community problem to the sociologist.[3]

Finally, the group problems of the sociologist and psychologist differ on the basis that for the former the person is plastic material fitted to a given society, while for the latter a group is simply any behavior shared by 2 or more persons. In this way individuals can at least influence society as much as society can influence the individual.

It seems evident that a great deal of the difficulty in separating social psychology from individual and sociological phenomena is owing to terminological difficulties. Possibly it would have been better if the social psychologist had persisted in devising a complete, exclusively psychological terminology for his descriptions. But on the other hand, we have to reckon with the general aversion from novel terminology. Further, there may be an advantage in using terms originally developed in sociology and anthropology in order precisely to indicate the interrelationships between these and psychological phenomena. And finally, since terminological problems are inevitable in all sciences, it would be asking too much not to contend with them in social psychology.

INDIVIDUAL AND CULTURAL PSYCHOLOGICAL PHENOMENA

Assuming that we can distinguish psychological phenomena not only from everyday facts, but also from sociologically described scientific data, we still face the problem of formulating a definite

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[3] Significant material for this problem is offered by Anastasi (7).

principle for separating individual and social psychological data. When, as we have indicated, writers on social psychology include such topics as learning, personality, motivation, the behavior of children, and similar subjects, we must inquire whether this is sheer duplication or whether a workable principle of differentiating between data bearing the same name is available. We are not, of course, interested in the propriety of organizing a social psychological book or course as a matter of academic or financial expediency. That is an extra scientific problem which does not concern us. The question really is: Can we, by analyzing interbehavior, discover authentic differentia to mark off 2 distinctive forms of psychological activity? Unless we can do so, social psychology cannot be a genuine department of psychology.

Learning. For example, in what sense is learning social psychological? Among the bases for making a special class of social psychological learning activities are: (1) the relative performance of children working alone and in the presence of others, (2) the influence of suggestion in the sense of a person's verbal stimulation, (3) the factors of sympathy, (4) imitation, and (5) rivalry in what is called learning. Patently, the criterion of ' social ' here is the presence of other persons when learning activity is going on. It is unnecessary to repeat the objection against employing crude sociological criteria, which objection holds for " primary and direct and immediate person-to-person relationship " (21, p. 1097), as well as for any other. Persons in such situations operate only as parts of the setting or auspices under which activity is performed. It remains to be shown how the presence of another person makes an activity social, since nonpersonal conditions may have effects similar to personal ones.

As an illustration of genuine social psychological learning consider the individual, whether child or adult, who builds up a response function to an institutional stimulus function as compared with another individual who develops an idiosyncratic response function in a comparable sociological situation. In the former instance there is authentic cultural learning, but it must be described in terms of specific criteria differentiating it from nonsocial response and stimulus functions. In the experimental studies of Bartlett (11) and Sherif (72) such cultural learning is amply illustrated. Bartlett makes plain, however, that he does not feel certain that such learning constitutes the building up of conventional stimulus and

response functions, but still inclines toward the view that conventionalization may itself be based upon minute specifically directed tendencies.

Personality. There appears to be some evidence that the emphasis upon personality study in social psychology is based upon the Wundtian differentiation of simple physiological psychology (sensation, feeling, reaction time) from complex or social phenomena (language, belief). Although patently personality phenomena are complex, we cannot say today that perceptual phenomena are simple. Even if we agree that actions dependent upon organic processes are simpler than those based upon interrelations of persons, we may still be certain that perceptual and affective processes are not merely activities involving organic structures, but are just as much cultural activities. Moreover, are simplicity or complexity good bases for dividing off data?

Certainly personality data must be incorporated into social psychology. But on what basis? When personality is regarded as the individual's behavior equipment instead of internal (neuropsychic) directing or determining forces (6), we inevitably find that most of his equipment is cultural. Accordingly, social personality is not only an allowable but a necessary subject of social psychology. But on the other hand, we cannot deny that a significant portion of an individual's equipment is noncultural—namely, idiosyncratic. Those who are interested in a certain type of phenomena must not be misled by the frequency of certain data to overlook the fact that a general principle which neglects other less frequent data must not be set up. As a matter of fact, probably the most important factors of personality are the idiosyncratic ones. Be that as it may, only the cultural types of equipment have a legitimate place in social psychology.

Abnormal Behavior. It is a truism among students of abnormal psychology that a great amount of abnormal behavior consists of nonsocial or nonconforming activities. Still, a deal of social psychological writing is devoted to such behavior, which is an indication that the writers concerned treat such behavior sociologically.

A quite different sort of material is contained in the recent articles and books (13, 20, 27, 28, 37, 46, 61, 71, 77) devoted to the comparison of aberrant behavior influenced by different cultural systems or patterns. When universal forms of conduct are shown to consist of shared responses to particular stimulus functions of objects they belong to the genuine class of social psychological phenomena.

Child Psychology. That social psychologists include so much child psychology in their works is a tribute paid to the developmental character of psychological phenomena. As such, this inclusion can only be commended, though we must emphasize once more the necessity of distinguishing between social and individual psychology. Especially those who insist that all psychological phenomena constitute events with definite historical backgrounds must separate the development and modification of reflexes, idiosyncratic phenomena, and definitely cultural forms of interbehavior. Since the largest part of every individual's equipment is cultural, it is necessary to include a generous amount of developmental material in the social psychological field. Nevertheless, the emphasis is not to be placed upon development as such, but upon the development of particular kinds of psychological phenomena.

Attitudes, Traits, and Opinions. Similarly, we must separate those attitudes, traits, and opinions which are genuinely shared and conforming from idiosyncratic and other forms of interbehavior. Doubtless because of the criterion of complexity the activities subsumed under these names have been stressed without regard to their specific nature. Nevertheless, traits, attitudes, and opinions as specific interbehavioral acts are differently developed and performed. It is only those that are conventional that properly belong, in our opinion, to the social psychological field.

On the other hand, social psychology, of course, can in no sense be limited to ideas, attitudes, traits, opinions, and other such complicated interbehavior which have become the stock in trade of social psychological writers. In addition, all sorts of manipulative forms of response should be included, such as shared forms of walking, eating, dressing, and other supposedly simple activities.

SOCIAL PSYCHOLOGY AND SCIENTIFIC METHOD

Our attempt to survey the social psychological field has compelled us to face the problems of how to approach the subject and how to determine the character of social psychological phenomena. Difficulties similar to those we have encountered pile up like Pelion upon Ossa when we consider methods and techniques. Despite all this, we still assume not only that social psychology is a definite department of psychology, but, further, notwithstanding the essentially humanistic character of its data, that social psychology, like psychology in general, is unmistakably a natural science. Accordingly, we conclude this review with the consideration of some

methodological problems facing the social psychologist, following a plan projected in a recent paper (43).

Science As a Form of Interbehavior. Since the methodological problems of social psychology entail questions concerning the nature of science itself, it may not be amiss to begin this part of our survey by considering some expressed notions on this subject.

Social psychologists (17) repeat the frequently asserted propositions that: (1) science is an organized body of knowledge concerning nature which has been gradually accumulated by humanity; and (2) scientific facts are those to which competent observers give universal assent. The first of these, even when it refers to accepted results, gives us a static notion that hardly does justice to the unique and complex processes of science. Though this proposition may imply that the results were obtained by definite procedures, the importance of these procedures is insufficiently recognized. The second proposition has hardly anything to recommend it other than the fact that many scientific propositions are agreed upon and that scientists frequently concur that what they previously agreed upon was false or inadequate, and hence not science. An objection to the agreed-upon notion is that there is no indication that agreements and shifts in agreements, when they occur, result not from the alignment and realignment of workers, but from the fortunate extension of more adequate contacts with phenomena.

For these reasons we should like to set against these conventional views the interbehavioral idea that science is a definite enterprise for ascertaining the principle or significance of phenomena. This means that the scientist begins with a problem indicated by some event which we may call the raw or crude data. Naturally, the results of the investigation become stimuli for further research. Howsoever definite the crude data may appear to be, unless they stimulate the search for unknown factors—a search involving the complex interbehavior known as postulating, hypothesizing, and investigating procedures—they are not materials for the scientist, but for some sort of practitioner. As interbehavior, then, scientific work comprises a number of distinct interbehavioral steps.

Isolating Data. First in chronological order comes the isolation of a specific problem concerning the identity of a phenomenon and the way it operates. Moreover, this problem must be fundamental and significant; that is, it must touch the bottom of some general orientational interest of the scientist. Even though, as we have seen,

social psychological literature does not reveal clear-cut notions concerning data, there is no occasion for despair. Sociologists who distinguish between sociological and psychological events are making progress in this direction, while such psychologists as Allport and his followers, who occupy themselves with conformity and institutional behavior, could attain this goal by relinquishing their sociological borrowings.

Observational Procedures. Next in the list of interbehavioral operations are the various methods of investigating the isolated data. In general, this signifies some informing contact with a phenomenon. As it happens, the most fundamental problems in social psychology are at present not subject to extensive experimentation and therefore must be primarily handled as field phenomena. These limitations are happily not technical, but rather socially, and perhaps legally, proscriptive. That social psychologists are beginning to realize that is indicated by the change of viewpoint on the part of Murphy, Murphy, and Newcomb (**64**), who declare in the 1937 edition of their *Experimental social psychology* that the " book can no longer be reasonably organized around experimental method or quantitative method as such " (p. 14). The inference is that the Murphys' original exuberant declaration (**63**) that there is an amazing and even an alarming increase in experimental studies of social psychology was nothing but tribute paid to an ism—experimentism. Their enthusiasm led them to incorporate in their first edition material that could only by the most powerful stretch of imagination be called experimental and social.

To convert such an autochthonous feature of science as experimentation into a dogma frequently results in the most disastrous perversion of scientific purposes. One may be led to reject exceedingly important and characteristic data because, forsooth, for one reason or another they are not subject to experimental handling. But worse still is misconstruing phenomena, so that they become manipulable (reducing remembering to memorizing, speech to sound production), or emphasizing useless and irrelevant procedures because at the moment they are regarded as experimental. To make experimentation into a fetish or sacred ritual is to overlook the fact that some phenomena require only, or limit investigation to, such study as can be carried out by microscopic, spectroscopic, or telescopic examination or similar nonmanipulative techniques. To treat such phenomena as though they were the kind we can cause

to appear and disappear, take apart and reassemble, is to forget that science is not a series of prescribed manipulations, but such interbehavior with phenomena as yields an understanding and probable control of them. Experimentism in science courts the well-framed taunt that a scientist is a Frankenstein whose construction, whether it be a bit of apparatus or a theory, constitutes a monster which if it does not destroy him scientifically altogether at least enthralls him. By the enthralled scientist is probably meant the worker whose range of activities and intellectual horizon are completely bounded by a particular piece of apparatus or technique.

Those who follow social psychological literature must be struck by the anomalous conception of what constitutes experimentation. Among the materials published as experiments are recordings of verbal responses to pictures, crossing out words, various ratings of individuals, counting the number of persons who do or do not kneel in church, etc. Broadly we question whether casual observation, the simplest forms of manipulation, or the sheer ascertainment of any sort of quantity is experimentation. For this reason we regard with favor the more mature view expressed in the second edition of the Murphy and Newcomb book (**64**).

That so many experimental social psychological studies could be amassed, even when we consider only those that deserve the appellation, has only been possible by arbitrarily defining social psychological phenomena as the responses of individuals performed to the behavior of persons. No one, of course, could possibly disagree with the injunction to experiment wherever possible. But if social psychology is really to be a science we must make certain that our investigative methods are specific and intimately adapted to the data at hand. Furthermore, the experimenter must distinguish between the different ends to which his activities are means. For example, is he merely (a) attempting to discover if and in what degree a phenomenon exists (memory span, retroactive inhibition); (b) attempting to discover the characteristic of a phenomenon already known to exist (explaining the character of attitudes); (c) ascertaining the conditions under which a phenomenon exists (whether and how authentic attitudes can be changed); and (d) testing a crucial question—for example, whether a social psychological activity is biologically or anthropologically conditioned?

Incidentally, we have pointed out the absolute necessity of following up the determination of the existence of a phenomenon by a statement of its dimensions, whether of size, intensity, weight, or

density. The more intensely quantitative the results the more elaborate and many-sided the investigation. Indeed, quantitative determinations are frequently the evidences for the genuineness of a phenomenon. Yet in social as in general psychology we still need to be reminded of what in some quarters is a commonplace: numbers are valid and significant not because they are numbers, but because they inform us of the magnitude of a quality or event. We may well distinguish between numerology or number magic, and the operational numbers obtained by counting and measuring. It is the blind worship of numbers that leads to such invalid constructions as abstract intelligence in the individual or innate racial mentality.

It is hardly necessary to insist how experimentally fertile is such an important and broad field as social psychology. We need only repeat that the investigator must be in contact with an authentic criterion. As examples of such experiments we mention but a few on perception (72) and the development and change of opinions (8). But here a pertinent question arises concerning the relative value for social psychology of such experiments as compared with such normal-setting observations as those of Efrom and Foley (26, 30) on gestural behavior.

Constructing Descriptions. Scientific description consists of sets of propositions constructed by the scientist upon concluding his investigative interbehavior. Adequate scientific descriptions as summaries of findings, therefore, are not only derived from, but also fit, the original phenomena and take account of the particular techniques involved. These constructions constitute scientific data in contradistinction to the original phenomena—namely, the crude data which set the problem.

Since scientific descriptions are determined by the characteristics of the phenomena, the question whether they are constructed in the form of verbal propositions, graphs, diagrams, formulae, etc. depends upon the data. It follows that no particular kind of descriptive construction is *ipso facto* superior to any other, nor can the degree of descriptive rigor be otherwise conditioned than by the nature of the data. Otherwise, we risk the error, for example, of constructing quantitative or mathematical descriptions when the data cannot yield such constructions. In no case may the data be fashioned to fit the pattern of description.

Allport's j-curve hypothesis of conformity behavior (4) illustrates

some of the problems of social psychological description. This writer and his students (**45**) have described various forms of sociological activity, such as the slowing down of the automobile driver at the red light, the action of Catholics upon entering a church, and time of persons arriving at place of work, by a unimodal curve. Conformity behavior, they " find," cannot be described as normally distributed.

A critical glance at the material indicates at once the lack of connection between the description and the described. Why should not conformity behavior be represented by a straight line? That the writers concerned obtain a *j* and even a decided *u* distribution suggests a number of important questions.

In the first place, are psychological responses being described, or do we have here merely a record of what persons do under certain conditions—for example, when approaching a stop light or entering a church? How can one rigidly describe actually undefined data? Certainly the social psychologist should differentiate between sociological and psychological phenomena. In the present instance we find the descriptive term *conformity behavior* used for different varieties of phenomena. Instead of studying psychological activities (specific response and stimulus functions), these writers record what may be called sociological conformity and nonconformity. For example, in one study the degree of participation in the holy-water ceremony is casually observed with the result that 27% of all the persons counted did not perform the behavior. These persons are said to have spoiled the distribution (**45**, p. 140) and are accounted for as perhaps non-Catholic visitors. Why mathematical or numerical treatment of so little known material?

Another question arises: Is the j-curve a description of a finding or a synonym for a definition? Allport (**4**) defines conformity behavior as that in which at least half of the persons concerned act according to prescribed rules for carrying out a certain purpose. Conformity is, then, not only an arbitrary condition, but also a sociological one. For this reason the curve is sometimes double, with a tail for overconformity. Katz and Schanck (**45**), haunted by the spectre of making facts fit the description, argue, accordingly, that in the Elm Hollow study of the junior author persons were classified as Methodist on the basis of whether or not they identified themselves with the Methodist church. Then their behavior (beliefs) appeared to yield j-curves. Conformity, of course, is a fundamental characteristic of social psychological phenomena, but not until one

actually isolates a definite psychological performance can one proceed to study conforming behavior, no matter how much one records the actions of individuals.

The j-curve " hypothesis " not only is undescriptive of psychological phenomena in a scientific sense, but it contradicts actual findings. Newcomb (64) points out that the j-curve hypothesis does not apply to conformity in attitudes which show neither overconformity nor nonconformity, but different kinds of conformity. Probably conformity studies always show some form of normal distribution. For example, in referring to a table the pronunciation of the word *table* is a genuine conformity or social psychological response, yet there are variations describable by points on a normal curve. In such cases, of course, we are dealing with authentic social psychological interbehavior with particular stimulus objects, with variations based upon definite psychological and other conditions. The point here is that in psychological performance as well as in all phenomena, no 2 items can be exactly alike.

Then there is the question concerning the function and power of a curve description. Allport and his students place a tremendous emphasis upon the curve, as though it lends potency to a form of behavior or conditions its character. This propensity to transform a curve or trend line into a force is a common practice of social science workers. So important and so much an objective reality to Allport is his j-curve description that he has employed the analogy of a sand dune to explain it. The conformity-producing agencies, like the wind blowing sand against a rock, produce the long arm, while other phenomena oppose this action. Allport's own students (45) point out, however, that a distribution curve is only a mathematical summation of measurements and not an object with physical forces playing upon it. How sharply Allport's descriptions contrast with propositions designed to show the conditions under which persons do or do not perform certain activities!

Are descriptions measurements? Katz and Schanck, who condemn Allport's analogy of the j-curve with the sand dune, themselves describe the curves as summations of measurement. Actually, the curves are merely descriptions or representations of counting results. To confuse enumeration and measurement is to indulge in a highly unsatisfactory form of analogizing.

This brings us to the general problem of analogies in social psychological description. Since descriptions entail linguistic constructions they are bound to be in part analogy. But we must dis-

tinguish between substitutive and indicative analogies. The former, exemplified by describing man as the perfection of nature, distort and mislead, while the latter, illustrated by describing man as a domesticated animal, when judiciously employed may further scientific enterprises. Social psychological descriptions constructed of such terms as fluidity, permeability, and vectors, used by Brown (17), turn out to be substitute and irrelevant analogical constructions. They remind one of the analogical gem recently perpetrated by an enterprising pastor who nailed upon his church door a poster declaring that " the church is the research laboratory of the soul."

Constructing Abstractions. The work of constructing abstractions in science constitutes an elaboration of the selecting or isolating activities featuring every form of interbehavior with phenomena. On the isolation level the scientist chooses a problem and data to work upon; on the abstraction level he constructively extracts what he regards as the essential features of phenomena in preparation for building laws or principles concerning their interrelations.

Social psychological writings are replete with faulty abstractions, as, for example, the socialization process borrowed from sociology. This implies the existence of a single entity called ' society ' which operates upon a passive individual. Similarly, social psychologists draw from physiology various sorts of essential factors or principles —for instance, motives based upon bodily needs and satisfactions. An illustrative, though not exhaustive, list of social psychological abstractions includes sympathy, imitation, rivalry, instincts, prepotent reflexes, drives, tensions, etc., all of which are ostensibly traced back to physiological processes. Abstractions in social psychology, we suggest then, should be derived directly from observations upon social psychological phenomena. If we accept as the fundamental psychological phenomenon the interrelation of response and stimulus functions, we need only specify that in social psychology the response functions are common or shared, while the stimulus functions are institutional in character.

Now since stimulus and response functions are simply the primary factors analyzed out of behavior segments, we may regard the cultural behavior segment as an indispensable social psychological tool. This behavior-segment construction includes, besides the stimulus and response functions, the setting or auspices under which they operate at the time as well as the historical conditions or reactional biography in which they originate. The individual's reactional biography in its cultural aspects consists of his psychological develop-

ment from earliest infancy in social psychological groups, that is, through interbehavior with established conformity stimulus and response functions. These social psychological events are, of course, always located in a matrix of sociological and anthropological conditions.

It is our opinion that this behavior-segment construction affords us the scientific advantages of a technically psychological unit of observation and description. This behavior-segment unit is useful in (1) differentiating psychological phenomena from both technical and crude sociological data, (2) distinguishing between social and general psychological phenomena, and (3) separating different kinds of social psychological interbehavior. Because the behavior-segment abstraction takes account of the eventual (in the sense of concrete spatiotemporal = durative, and historical = developmental) character of psychological phenomena (occurrences), it provides us with the authentic variables necessary for building up a useful scientific edifice.

As a test of the behavior-segment hypothesis let us consider Murphy and Murphy's references to the obvious difficulties of studying the influence of sociological situations upon children (65). For example, they call attention to (a) what they call atomic-organism and situation errors in description. In the first of these one relies exclusively upon behavior characteristics of the organism and in the second upon autonomous stimulus objects or situations. (b) Another difficulty they point out concerns the determination of variability and consistency in children's behavior, especially the impropriety of equating statistical invariability with consistency and statistical variability with inconsistency. Their solution entails: (a) differentiation between atomic and functional approaches to social behavior (the functional approach takes account of the type of situation in which the organism is responding), (b) a moral judgment concerning the value of consistency, and (c) the rejection of the consistency and inconsistency terms.

Doubt that such a solution can allay the difficulties is engendered first by the consideration that the functional approach, howsoever great an improvement over the atomic ones, does no more than treat the child's activities as gross and fixed performances, while the situation is regarded as similarly static. It is hardly possible to explain variation of action by a change in object because, obviously, the child performs similar gross reactions in the presence of various objects and different gross reactions in the presence of the same

objects. In another place the junior author (73, Introduction) refers to this difficulty of varying stimulus values. Again, the psychologist has no call to praise or condemn any sort of action but only to describe it. And finally, whether we reject terms depends only upon the question whether we can observe corresponding phenomena. Consistency and inconsistency are definite phenomena involving the repetitive interplay of response and stimulus functions coördinated in prior contacts of individuals and stimulus objects.

Because the eventual behavior-segment abstraction with its mutual and reciprocal functions can clear up such questions among others in social psychology, it amply justifies itself. The crying and laughing of a child are not studied, then, as gross statistical phenomena, nor even as particular actions, without regard to previous contacts between the particular child and specific objects.

Descriptive precision requires that we analyze specific stimulus and response functions out of similar complex situations. The term 'situation,' of course, refers to the total field of operations or behavioral-reference frame which includes the setting. For example, the usual coördination of an amusement laugh in the presence of an object may fail to occur in the presence of persons entirely strange to the child. Consistency and inconsistency are functions, then, of the organism, object, and setting in an eventual frame of reference. The settings may naturally be either cultural or personal or combinations of the 2 sorts of factors.

The behavior-segment abstraction also enables us to distinguish between social psychological and non-social psychological phenomena, which the authors of the article cited do not do. What they call the 'social factor' constitutes the setting or auspice factor in the interbehavioral situation. To distinguish, therefore, between genuine social and nonsocial interbehavior it is only necessary to notice that the former involves shared response and institutional stimulus functions.

At this point a word is in order concerning stimulus values. Doubtless psychologists have always appreciated in general that the particular ways in which persons interact with things depend upon their past histories or experiences. The conception of the interpretative character of perceptions exemplifies this point. However, few, if any, psychologists appear to realize that this reference to past experience is merely a slight indication of the intimate facts of reactional biography. For example, Murphy (73, Introduction), who faces the problem of stimulus values, asserts that differential reactions

are made possible by the past histories of the reactors as an adjunct to their biological differences. The reactional-biography construction, on the other hand, makes plain that the present differential responses of individuals to objects are essentially historical outcomes of their respective reactional biographies. For social psychology, at least, the psychological phenomenon is exhausted in the reciprocal operation of response and stimulus functions with the greatest measure of freedom from the natural properties of organisms and objects. What are called stimulus and threshold values are not merely adjustments to objects, but the very psychological properties or functions of objects themselves.

Similar comparisons may be made between the behavior-segment construction and such abstractions as barriers, boundary, tension, vector, etc. (17). As the writer has shown elsewhere (41), it is possible to derive a sufficient quantity of abstractions from psychological phenomena which are serviceable for their description and interpretation without resorting to sterile analogies.

The validity of the eventual behavior-segment abstraction receives a further test in the study of cultural personality. Students of psychology have always been alive to the necessity of considering the continuity, predictability, and variability of psychological performances. This has been true especially since Hume's psychology without a soul. In recent years the cry has become strident that experimental psychology has tended more and more toward the generalizing of psychological phenomena, with a deplorable neglect of the individual.

It is evident that psychology must constantly emphasize the specificity of interbehavior. Individuality and individual differences constitute the cornerstones of psychology. Unfortunately, however, the recognition of the specificity of psychological performance and the centering of psychological behavior in an individual have led to a recrudescence of historical metaphysics in psychology. Especially to be noted here is Allport's (6) espousal of personalistic psychology with its plea:

"There can be no adjustment without some one to adjust, no organization without an organizer, no memory without selfcontinuity, no learning without a change in the person, no knowledge without a knower, and no valuing without some one possessed of desires and the capacity to evaluate" (p. 552).

This statement appears logical enough. But the question arises: Do we need to resort to metaphysical tradition to supply the be-

having individual? Allport espouses the absolutistic notion of personality as a continuing entity as against the relativistic individual engendered in specific contacts with things. The relativistic individual can be modified by changes in reactional biography.

In order to provide for continuity, predictability, and variability in psychological activities we need only consider that we are dealing with particular biological organisms, that their reactional biographies are homogeneous and their activities interbehavioral, so that the homogeneity of the organisms' surroundings helps to maintain their integrity. Conversely, contacts with extremely different objects and situations foreign to their reactional biographies disrupt and dissociate their personalities. If the behavior-segment construction with its implied concrete individual can help us dispense with psychics, whether neuropsychics or just plain psychics, it makes a place for itself in science as well as in general psychology.

One more point. Abstractions are constructed from the scientist's interbehavior with phenomena. They are not simply imposed upon phenomena. Thus we may contrast the behavior segment and implied developmental history with constructions based upon tradition—in other words, abstractions that are primarily verbal constructions. The difference between these is illustrated in social psychology when we compare various notions of attitudes and traits. From the standpoint of the behavior-segment abstraction, attitudes and traits constitute specific coördinations of interbehavioral response and stimulus functions. By comparison on the traditional basis attitudes and traits are regarded as unobserved and no doubt unobservable (5, 6) determining forces. We submit, then, that interbehavioral abstractions obviate (a) the comparison of " inference " as traditional assertion with abstractions constructed from observed events, and (b) the justification of the belief in inactive activities by the use of the blessed word *neural*. A critical glance at tradition enables us to compare the value of completely unknown neural foundations for traits (6, pp. 286n., 339) with the observational basis of interbehavioral response and stimulus functions.

Formulating Generalizations. Generalizing as a phase of scientific interbehavior consists essentially of constructing formulae, summarizing the salient results reached, so that they can be employed in predicting and anticipating similar phenomena.

Since generalizing interbehavior is mediated by substitute stimuli, because of the individual's remoteness from original data, the results may be oblique or direct. In the former case the descriptive

formulae or conclusions are constructed more on the basis of prior attitudes than upon the immediate data at hand. In general psychology we have innumerable instances of so-called physiological explanations or laws which have no manner of connection with observed data.

Again, as constructive interbehavior, the work of formulating generalizations reflects the worker's intellectual attitudes. Specifically, this influence operates through the selective activity basic to generalization. Here the worker is usually influenced by general and local (school) traditions. We have already referred to the untoward consequences of the generalization that social psychology studies the interbehavior of persons. One objection to such an arbitrarily selective generalization is the possibility that the person or group presumed to condition an individual's behavior constitutes merely a setting. In this case, results and conclusions are reached by the use of a name. Another illustration of such oblique generalization in social psychology is limiting the phenomena on the basis of an experimental criterion and then building a set of propositions concerning social psychology in general, founded on this arbitrary selection of materials.

Oblique generalizations are not always blanket covers for all phenomena; some of them constitute constructions for particular phenomena. Among recent oblique, partial generalizations in social psychology may be mentioned social facilitation (1), norms (73), frustration (64), social traits (6), attitudes (5), etc.

Direct generalization, on the other hand, is based upon actual observations. This means that the hypotheses, laws, and principles contain more ingredients derived from immediate observational circumstances than from former unrelated investigations or sheer general tradition. When the latter are kept under control—a consummation often as difficult to achieve as it is devoutly to be wished—effective scientific generalizations are far more possible.

Howsoever difficult it may be to exclude general and local traditions from our work, the ideal of direct generalization itself provides the impetus for determining whether or not we have social psychological phenomena as clearly defined data with characteristic properties, so that they can be ordered and related upon the basis of authentic and significant criteria.

In re scientific generalization, social psychologists distribute themselves bimodally. In addition to those centering about the ordinate of faulty generalization is the group which shies away from

laws altogether. A prevalent social psychological attitude inclines workers to pile up " facts " à la Bacon, either because they are skeptical of attaining laws or because they hope the accumulation of facts will somehow reveal laws. A typical skeptical expression is that of Murphy, Murphy, and Newcomb (**64**): " We are indeed eager to find such laws, but we doubt whether our generation will live to see them established " (p. 17). Doob (**24**) impatiently replies: " . . . As every sophomore is able to repeat on an examination, fact-finding and theory-building must occur simultaneously " (p. 115). As we must expect, the difficulty here goes back to differences in the understanding of the nature of laws. Frequently laws are regarded as absolute and universal principles, though science plainly teaches that generalizations, whether theories or laws, are nothing more nor less than formulations of principles based upon orientation with respect to particular data. They are not absolute prescriptions found in nature, although they are, and of necessity must be, based upon interbehavior with occurring phenomena.

Inhibition to seek laws of humanistic phenomena is also rooted in the belief that such phenomena cannot, though they must, be reduced and formalized to meet the specifications of the physical sciences (**38**). This sort of view has been challenged by Znaniecki (**82**), who makes all reality cultural, and by Lundberg (**52**) and Kantor (**42**) on the basis of a naturalistic methodology of science. The physics-pattern adherents overlook the fact that humanistic laws are formulations of interbehavioral results, and so, if necessary, must take account of greater variabilities and complexities than is the case of physical phenomena. That the conditions of human events are more variable and difficult to ascertain and thus may lead to less frequent and more abbreviated intervals of prediction are themselves facts to be formulated and not arguments against formulation.

Modern physics, no more than any other science, is concerned with ultimate causal relations. It is now fully realized by all scientists that the old absolute causes were only surrogates for creative forces. Today probability reigns supreme in all sciences, and probabilities ar derived from concrete investigations which inform the scientist of the degrees of certainty he may assert. That laws are interbehavioral constructions implies, to be sure, not the slightest arbitrariness. No discriminating scientist generalizes at his pleasure; no, nor even to satisfy accepted traditions. The interbehavioral

principle rejects all powers, entities, uniformities, and conformities unless they are derived from operations with actual phenomena.

To indicate that there are social psychological laws we suggest the following illustrative generalizations: (1) Cultural personality is a function of culturalization rather than biological make-up; (2) all cultural equipments are developed in an indefinitely large number of culturopsychological groups; (3) social psychological groups are conditioned by historical, political, sociological, economic, and psychological factors; (4) cultural personality is transformable in whole or in part.

Interpreting Results. It is a convention of psychologists that interpretation goes no further than the immediate data at hand, and even then all that can be done is to supply hypothetical neural explanations for the findings. For example, as a social psychologist, Allport asserts that attitudes are not directly observed phenomena (5, p. 839); yet they must be assumed to be neuropsychic facts (5, p. 836). One of the paradoxical characteristics of current social psychology is that while the actual work is thoroughly suffused with presupposition, assumption, and even prejudice, the opinion still prevails that theory is to be shunned. This circumstance gives a peculiar turn to the entire discipline.

Theory, as all scientists know, is the very life of science. Such theory, of course, is derived from interbehavior with phenomena. Social psychologists, however, prefer to believe that they must confine themselves to experiments or manipulations of some sort without entanglement with interpretations. As contrasted with physical scientists psychologists are misologists. Whereas physical scientists, fortified with a great mass of knowledge and an expansive record of solid achievement, are willing to divide their entire science into theoretical and experimental branches without diminution of mutual respect, the psychologist, constantly obsessed by an inferiority feeling, shuns ideas in favor of facts. As a consequence, many of these facts—for example, neuropsychic determiners of behavior—are purely imaginary constructions. Since no scientific worker can ever begin without assumptions and postulates, the construction of theories should be boldly and openly pursued. An undoubted reward would be the abandonment of the dualistic assumptions basic both to the psychologist's inferiority feeling and the interference with his development of adequate assumptions and interpretations.

The desirability of following physicists in contructing methodological and interpretative foundations and frameworks is in no wise

to be interpreted as borrowing ideas derived from interbehavior with nonpsychological kinds of phenomena. On the contrary, psychological theory must not only be derived from, but be applicable to, psychological phenomena. Otherwise, scientific progress is hardly to be hoped for. In this sense we must dissent from Brown's (17) proposal to set up arbitrary mathematical principles to control psychological investigation and measurement on the analogical reasoning that what is good for physics is good for psychology also.

Granting, then, that theoretical constructions are as important as they are necessary, let us observe that scientific theory constitutes interpretative forms of operation interwoven with every step of investigation. Psychological writings are beginning to show a belated recognition of interpretation, though only in the grudging acknowledgment of postulates. Even here it is customary to regard postulates as at best a sort of detached activity preceding the rest of the work. Actually, the postulational procedure as a phase of the interpretative enterprise operates throughout the entire course of scientific investigation. It is not farfetched to say that postulates are propositions which the worker sets up by way of systematizing his findings. In this sense the interpretative level represents the worker's essential appreciation of his problem and results. In the ideal case, scientific interpretations consist of the modifications of one's presuppositions during the course of one's interbehavior with the phenomena studied.

It is a defect of current social psychological interpretations that for the most part they consist of applying the concepts of general psychology to sociological materials. In consequence, social psychological interpretations fall into 4 groups on the basis of stressing (a) the individual, (b) the environment, or (c) both. In the last case there are 2 forms, a static-field theory and an interbehavioral interpretation.

(a) *Individualistic Interpretations*. These all center about internal principles; that is, the phenomena are accounted for by factors in the acting organism. Naturally these principles vary with changes in general psychological viewpoint and general scientific status of a time-period.

(1) Foremost among the internal-principle interpretations are those centering about human nature. Psychologists still look to human nature, whatever that may be, as a basic principle to explain the characteristics and conditions of social psychological phenomena. Even writers like Murphy (73, Introduction), who catches a glimpse of

the influence which the "wealth of background factors in the immediate and remote life histories of the individuals concerned" exerts upon investigated events, fall back upon ultimate human nature when laws are in question (**64**). Murphy believes that laws are absolute, universal, and exceptionless, and in consequence he must revert to an impossible and nonexistent internal principle. When actual phenomena in the form of cultural conditions force themselves upon the attention of psychologists they insist that their potency can only be manifested by a process of interiorization (**6**, Preface).

(2) Another typical individualistic interpretation lies at the center of what is called dynamic social psychology. Psychological dynamism consists, essentially, of certain putative forces in the human individual that not only explain his behavior but make society what it is. Here we have the familiar instincts (**57**), desires (**25**), prepotent reflexes (**1**), drives (**36, 78**), etc.

(3) Perhaps a special place should be given to motivation as an individualistic interpretation, since here biological as well as purely psychic factors are stressed. Probably most psychologists who traffic in instincts and desires cannot avoid psychic factors; still, most of them place special emphasis upon the ostensibly more respectable biological factors which they call tissue needs, etc. Despite the fact that it is frequently pointed out, as by Kantor (**40**) and Sherif (**73**), that tissue needs are abstractions from complex events and also culturally determined, they still seem to be available as starting points and interpretative principles for very complicated sorts of phenomena of which they can be only at most analyzed factors or parts.

(4) Despite the fact that the various forms of psychoanalytic interpretation constitute the fitting of ready-made principles to data, Freudian ways of thinking exert a considerable influence upon social psychological as well as sociological writers. We cite only 2 examples, Martin (**55**) and Dollard (**23**). It is itself a social psychological problem why writers use Freudian materials as explanatory principles, since it has been necessary to interpret and reinterpret such materials to make them appear applicable. Kroeber (**46**) and Lowie (**50**) have provided relevant suggestions concerning this point.

(b) *Environmental Interpretations.* Historically, the environmental forms of interpreting social psychological phenomena arose as an attempt to correct those views centering about internal principles

and also to give environmental conditions their due. Soon, however, environmental conditions became so magnified as to become causes or bases for psychological phenomena. Environmental interpretations take 2 distinct forms.

(1) One version fostered by sociologists stresses environmental—that is, sociological—factors as external forces. In the literature this view appears most prominently in the denial of innate human nature and instincts, and emphasizes such phenomena as social and economic areas, economic circumstances, and so on, as determiners of criminality, poverty, feeblemindedness, and other psychological phenomena.

(2) More recently, with the developing prominence of anthropological or ethnological phenomena, a form of objective interpretation has arisen which stresses ethnic causes of action. The recent observation that types of intelligence and frequency of certain forms of abnormality are functions of different ethnographic situations has fortified this form of objective interpretation.

It was inevitable that both these individual and environmental types of interpretation should turn out to be emphases upon one or the other of 2 omnipresent poles of humanistic phenomena. Though each implies the other, stress of one results in a partial and fragmentary treatment of humanistic situations. This circumstance foreshadowed the field type of interpretation.

(c) *Field Interpretations.* Here we may distinguish between theories which (1) simply attempt to correct the one-sidedness of the unipolar interpretations by insisting upon situations (65) and those which (2), like Brown's (17), make use of a mathematical (topological) notion of field configuration. The latter type possesses the merit of emphasizing the mutuality of factors in a psychological situation. Unfortunately, topographic interpretations result in a set of static visual diagrams which may be useful enough in describing facts after they occur, but which fail to give any account of the developmental factors which inevitably play a part in such situations. At most there is presented a classification indicating various behavior situations. The individual is presumed to do what he does aside from his spatial location in a field configuration on the basis of his group membership. This interpretation misses all the specific, definite factors which in an intimate historical manner are necessary to account for social psychological events. Brown is sensitive to this weakness of his field theory and attempts to rectify it by adding such quickening ingredients as psychoanalysis and Marxian dialectics.

Whether this measure results in valid theory rather than verbal catchalls is highly dubious.

(3) A distinctive field theory is that which absorbs all phenomena into a general system called behavior, activity, or process. So far as social psychology is concerned, the basic question is: How can individual minds be interrelated with other minds or a social mind? Or, how can meanings and knowledge be at once private and not private, or public, so that there can be communication and common understanding? The answer implies a precipitation of both individual and social mind out of a common and general activity or process. Subject and object, knower and known, self and society, are all derivations from this general matrix of process.

Since this type of interpretation has taken so many different forms and is stated in such diverse terminologies it is advisable to indicate its origin. This general-activity interpretation may be dated back to Hegel's objective idealism, in which the attempt was made with one stroke to take account of specific incongruous facts and at the same time achieve a cosmic formula of reality.

With a progressively developing naturalistic outlook upon phenomena this dialectical scheme has been forced to take on a more factual dress. Especially since Darwinian times this type of interpretation of psychological and sociological phenomena has borrowed biological analogies as implemental supports. Specifically, the technique has been to show that organism and environment are not independent entities, but phases of a general biological process. Dewey (22) has brought this principle close to psychology by his reflex-arc concept which reduces stimulus and response to points on a behavior or action circle. On the level of sensing and perceiving, Mead (59) has attempted to show how the private psychic could be dispensed with. In detail he aims to show that sensuous qualities are objective phenomena, but only in a process which involves the selective agency of organisms. He uses the illlustration of food, which, as something the organism consumes, is objective, though it is nothing except in the process of eating. Thus, sensuous qualities are factors in a process. Applied to humanistic phenomena, the process formula is aimed to absorb everything in a general matrix of sociological interbehavior or action.

So appealing is this theory and so widely, if unwittingly, adopted that its essential mechanism needs to be exposed. That mechanism consists of 3 distinct phases. First, genuine processes are generalized. It certainly is true that psychological phenomena are inter-

actions between organisms and objects. But to reduce either the organisms or the objects to the interaction or to derive them from the process is impossible. We cannot overlook the fact that organisms and objects enter into and pass out of this situation. What remains, then, is the assertion that psychological interactions are interactions. To emphasize this tautology is, of course, a scientifically infertile procedure. The proponents of the process theory go even further by making the existence of food objects depend upon the eating of them and the act of eating not the behavior of organisms but simply actions of food consumption. Such a generalization absorbs the organism and the food object. Yet it is clear that the organism is always more than an eating process and the food always more than something eaten.

The second phase is taking the part for the whole. The eating performances of the organism and the edible properties are only parts of each of the interacting phenomena. That an organism selects the particular materials to be eaten is part of a large set of phenomena which must be described in their particular details. Also, the fact of being food-selective does not take away, for example, all the chemical constituents of the food objects that exist independently of the organism.

The third phase of the mechanism consists of employing a name or definition to reduce complex objects and events to certain processes. To describe a thing as food, and the eating of it as food consumption, is obviously the correct way of referring to a form of interaction, but this name and description do not exhaust one iota more than the bare interaction. They leave the object eaten and the organism which eats it intact as things and participants in many other interactions. What needs to be specified here is that we are concerned with a particular event and that our words and descriptions are references to those events. Otherwise, we risk the danger of assuming that because the descriptions or references are linguistic we are interested merely in linguistic phenomena.

A subvariety of this theory couched in terms of symbols is now widely current (**53, 60**). The technical differential here is to use symbols as the means of objectifying thought and making it available for intercommunication. The basic formula is Mead's (**59**) statement:

" The significant symbol is then the gesture, the sign, the word which is addressed to the self when it is addressed to another individual, and is

addressed to another, in form to all other individuals, when it is addressed to the self " (p. 162).

It is certainly true, as these writers indicate, that knowing, remembering, and ideating are not confined within the individual, but it is questionable whether such phenomena can be reduced to social interactions. Markey (53) says:

" Separate man from the confirmatory reactions and responses of others and his universe of knowledge tumbles " (p. 140).

The truth embedded in this statement is simply the fact that no man lives alone, while the objection is to dissolving everything in a solvent of process. Whether or not such interpretation is useful to sociologists, the objective psychologist certainly cannot make much of it. Such social behaviorism, as objective as it may be, omits entirely the actual development of individuals who come into contact with definite objects institutionalized in various ways in particular human groups, and who thus build up sharing responses as well as help to modify the objects and the actions of others to them. There is a definite contrast between a disguised dialectic and the concrete observed phenomena of objective psychology.

(d) *The Interbehavioral Interpretation.* If social psychological theory is to be adequate to the facts it is certainly necessary to avoid localizing all causal or contributory conditions either in the organism in the form of internal principles or in surrounding objects as external principles. In addition, it is evident that we cannot find much pabulum for theory in a general interrelation of internal and external principles or in general interpersonal connections. Social psychology, as is true of psychology in general, must keep in close contact with the actual performances of individuals as they interbehave specifically with particular stimulus objects.

Underlying this view is, of course, a presupposition concerning the nature of social psychology. For example, the Mead-Markey formulation may claim considerable merit when social psychology is assumed to be the description of the development of general or similar mentality. But when social psychology is defined as the genesis and performance of common or shared behavior and when this form of behavior is regarded as one of a number of types, a different sort of description is called for. Our descriptions must allow for specific contacts of individuals with things which lead to the development of unique forms of psychological interbehavior, as well as shared be-

havior built up by the individual's observation of how objects operate in cultural systems without his interacting directly with other persons. This is even possible in the case of recorded linguistic phenomena, as every archaeologist knows. Because there are no isolated human beings we may agree that all mentality is developed under some sort of social auspices, as likewise it must be engendered under chemical conditions; but is social psychology concerned with such general problems? No less than general psychology, social psychology is interested in specific psychological activities. There are no feelings, thoughts, habits, or linguistic performances in general. When we are concerned with specific phenomena it will not do to keep plucking the string of sociality any more than that of biology or chemistry.

The interbehavioral theory, then, concerns itself with the analysis of specific response and stimulus functions as they mutually operate in observed social psychological activities. These events must further be interpreted according to their specific developmental or historical genesis under particular conditions. Thus, there is a decided emphasis upon the actual developmental circumstances of a particular individual who is in contact with particular objects in his family, school, community, town, occupation, social and economic level, nation, etc. The interrelation of this developing and operating interbehavior with the specific life conditions of the individuals in question supplies a complete set of materials for the adequate explanation and interpretation of such events.

The interbehavioral form of interpretation lies embedded, of course, in a background of operational methodology. The operational principle implies a set of descriptive and interpretative constructions based upon actual contacts with the crude data. Whatever descriptions and explanations are constructed derive directly from traditional assumptions. Accordingly, all quaesita are drawn from the original data without interpolating extraneous materials (for example, psychical or neural) between the crude data and the final interpretations.

The operational principle applied to social psychological investigations makes full use of the logic of specificity. Such a logic demands the isolation of particular kinds of data, as, for example, social psychological from sociological and social psychological from general psychological events. Then it requires us to start with the actual behavior development of an infant as it develops its different modes of interbehavior with objects and persons on the basis of particular

genetic criteria. In this sense it is unnecessary sharply to separate such investigative methods as experimental, genetic, historical, and comparative. The investigator merely follows through his observations which, because of the character of the original events, involve all 4 forms of observational procedure. In general, the classification mentioned merely provides terms for convenience in describing procedures abstracted from the operational behavior of the observer.

Summary

The net result of surveying the present situation in social psychology varies with the features one dwells upon most. If we stress books with their insufficiencies, confusions, and difficulties we are quite likely to become discouraged. Little better do we fare when we emphasize the general ideas current with respect to the nature of the subject, its methods, and achievements. On the other hand, it seems possible that the assiduous pursuit of experimental studies should eventually yield valuable and lasting principles. Even more hopeful is the core of definite evolution which our survey has revealed.

That social psychology is developing the characteristics of a distinctive branch of psychology is discernible in a number of symptoms. First is the separation from sociology and the sociological discipline bearing the same name. Then there is the developing realization that social psychology is concerned with the responses of specific individuals. Further, the idea is making headway that it is possible to work out a psychological criterion to distinguish social psychological from nonsocial psychological forms of action. This criterion, moreover, appears capable of establishment upon specific principles.

And finally, we may be confident that there already exist the germs of distinctive investigative methods and forms of interpretation which are promising for the eventual development of a definite science of social psychology.

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THE NATURE OF CLINICAL PSYCHOLOGY [1]

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American psychology, generally speaking, has not been greatly interested in practical problems of human behavior. There have been many brilliant individual exceptions to this generalization, but the attitude of the representative professional group is clearly evident in the Proceedings of the American Psychological Association, which have been summarized in Fernberger's history (**28**, pp. 42–53). That the laissez-faire attitude of the Association was not shared by many of its Members is shown by the organization of the American Association for Applied Psychology (**5, 24**) in 1937. One of the fundamental reasons for the new organization is the ever-increasing opportunities, even demands, for psychological work in varied human affairs. Whether the practicing psychologists are working in schools, industry, business, hospitals, courts, or in private consultation, a large number of them are confronted with problems concerning specific individuals. It is in dealing with such individual problems that one of the most important services of psychology is to be found, and it is this individual work which constitutes, in a general way, the field of clinical psychology.

A statement such as the one last made is unsatisfactory because it is so general that it conceals many detailed problems which must be faced and solved if clinical psychology is to mean anything more than what each individual speaker uses it to mean. In other words, there is little or no actual agreement as to what clinical psychology is, except that it deals with individuals.

A more specific definition of clinical psychology has been attempted by many writers during the past quarter of a century, but their statements do not always agree among themselves. There is no intent in writing this paper to present a new, and *the final*, definition. Rather, we shall be content with doing spadework furnishing data for such a formulation. In order to define this subject we

should investigate at least 5 areas: (1) what it has been historically; (2) what people have said it was; (3) what is actually being done in its name; (4) the nature of the training required; and (5) what its relations are to borderline fields. A critical appraisal of material in these 5 directions should afford a more integrated basis for definition than has hitherto been possible.

I. HISTORY

The history of clinical psychology and psychological clinics is yet to be written. Interesting as such a history might be, we cannot undertake the task at this time. However, in order to understand present-day problems, it is important that we consider the main tendencies and influences that have shaped clinical psychology up to the present.

In 1896 Witmer (**79, 80**) presented to the meetings of the American Psychological Association a series of proposals concerning the practical investigation of problems of school children utilizing methods available from the psychological laboratories. The immediate occasion for these proposals was the examination of a child in the laboratory at the University of Pennsylvania. The study of this child and several others soon after gave birth to what Witmer later called " clinical psychology." There is little evidence that Witmer's proposals found response among the psychologists of that day. A decade later, in an editorial inaugurating his journal, the *Psychological Clinic,* Witmer (**81**) briefly described the occasion of his starting a psychological clinic and something of its subsequent history. In spite of Cattell's (**18**) recollection, at a much later date, that he had tried to start a psychological service for students of Columbia during " the middle of the nineties " and Fernberger's (**27**) statement that, if Witmer had not inaugurated clinical psychology, someone else shortly would have, it would appear that Witmer alone must be given the credit for the establishment of the clinical type of psychological application.

Because of the unique position of Witmer, it is necessary that his concept of clinical psychology be considered. While Holmes (**40**) described the clinic and its work as it was in 1912, Witmer himself has never described in any great detail the organization of his own clinic or the methods he used. The basic ideas of the originator of clinical psychology are to be found in a series of papers from 1907 to 1925 (**81, 83-95**), in which are discussed certain details of

clinical methods and the author's psychological systematization underlying clinical investigation. Essentially, Witmer was interested in the school child, and the task of clinical psychology was to describe and to evaluate the child's behavior according to certain analytic categories (85, 87, 93, 95), and to discover the reasons for deviations. Once this was done, special programs could be devised to improve the behavior. The techniques are illustrated in a number of cases by Witmer and his students published in the *Psychological Clinic.* Many of these are very short, and it would unduly expand our bibliography to list all of them, but one (91), illustrating the treatment of a case of arrested development, *i.e.* feeblemindedness, is typical. This case and its treatment would not be foreign to any modern child guidance clinic. In fact, both in Holmes's book and Witmer's papers there is much evidence that Witmer, and not Healy, first recognized the value of coöperation between psychologist, psychiatrist or physician, and social worker.

Essentially, Witmer's method was to study thoroughly the child as an individual; to use tests if they were indicated, but not to be bound by them; to make long-time observations in a teaching situation called diagnostic teaching; to evaluate social histories and findings from physical examinations; to keep always in mind that understanding of the child was the goal, not accumulation of data concerning him. This attitude minimized the values of formal case outlines (84) and too great dependence on standardized tests.

While the beginnings of clinical psychology must always be associated with Witmer, it is true that trends and events during the late Nineteenth and early Twentieth Centuries influenced its development. In fact it is probably true that Witmer's influence on present-day activities in the clinical field is rather small. In a large part this is to be regretted because he has always maintained a cautious attitude toward standardized procedures which, away from his influence, have frequently come to be synonymous with clinical activity.

An event of great significance for the development of clinical psychology was the publication of the Binet-Simon(7) scale in 1905. While the idea of measuring abilities was by no means new, Binet supplied a measuring tool that appeared to have more significance to the child's everyday life than any of the tests in earlier use. We need not consider the mushroom growth of tests of all sorts [Hildreth (38) lists about 3000, and Buros (16, 17) has added 868 more], as excellent treatises on the subject are available (31, 56, 57).

It is necessary to point out one important result of this growth. Tests appeared to be universal and foolproof diagnostic tools—they were easy to administer; they gave definite numerical scores; they appeared to be easy of interpretation. Because of this, much dependence was placed upon tests; and while we never quite got to a stage of advertisements such as

> BE A CLINICAL PSYCHOLOGIST
> The Binet test in 20 easy lessons

we came near to it.[2] In 1913 Sylvester (**68**) pointed out that one adverse criticism of clinical psychology was that there was too great emphasis upon mental tests. He admits that the criticism is valid and accounts for the condition on the ground of psychological interest in tests, their quantitative nature, and the public demand. While neither Binet himself, nor any of the early clinical psychologists, ever claimed miracles for standardized tests, the inevitable result ensued, and persons with a knowledge of tests—or even 1 test—began to offer themselves for, and v ere employed in, positions where only sound clinical training and experience were really valuable. While to follow all the possible results of this attitude would take us too far afield, we must point out that this is the essential basis for the widely held belief that clinical psychology and mental testing are the same activity.

The psychological study of the feebleminded was another early contribution to clinical psychology. In 1906 the Training School at Vineland, New Jersey, started a laboratory for the study of feeblemindedness (**22**). While research in feeblemindedness had produced a sizeable literature before this time, the Vineland laboratory was apparently the first to be devoted primarily to the psychological study of this condition. Under the original directorship of H. H. Goddard (1906-1919) this laboratory soon demonstrated the usefulness of the Binet tests and investigated other types of measuring tools. Under the subsequent directorships of Porteus (1919-1925) and Doll (1925-to date) there has been constant attention to the clinical problems of feeblemindedness. This work of Goddard's introduced psychological methods in the study of 1 large

[2] In the Newsletter of the Pennsylvania Association of Clinical Psychologists, Vol. II, No. 1, February, 1939, attention is called to an advertisement offering essentially this!

group of abnormal individuals. Work with the subnormal has been, and still is, an important field of activity for psychologists, but again it must be pointed out that such work is not coincident with clinical psychology.

A third name which appeared early and which has long been connected with clinical activity is that of J. E. Wallace Wallin. As long ago as 1909, while at the East Stroudsburg (Pennsylvania) State Normal School, Wallin (71) published a paper concerned with the psychological and medical inspection of school children. This paper pointed out the need for, and the excellent advances that had been made in, the medical and dental inspection of school children. But, he argues, this is not enough. There must also be systematic inspection and examination of mentally exceptional school children. In 1910 Wallin was director of a clinical laboratory for the National Dental Association and by 1912 had established a psychoeducational clinic at the University of Pittsburgh. His first specific paper on clinical psychology (72) was an extensive survey of existing clinics and a detailed exposition of the nature of the work. These early papers set the tone for all of Wallin's work, *i.e.* a specific interest in the school child and problems associated particularly with academic and social adjustment in the school.

Simultaneously with the activity in the strictly psychological field, there were movements in psychiatry that were destined to influence clinical psychology. During the last half of the Nineteenth Century a psychological or functional point of view was being introduced into psychiatry by such men as Charcot, Janet, Carpenter, Maudsley, Weir Mitchell, and Freud. This point of view led to the modern concepts of dynamic psychiatry, which is more psychological than it is medical. Partly influenced by this movement in psychiatry, partly from a more specifically psychological approach, and partly from the practical problem with which he was confronted, Healy (37, pp. 809 ff.), in 1909, started a behavior clinic to deal with juvenile delinquents in connection with the Cook County (Chicago) Juvenile Court.

This Juvenile Psychopathic Institute was at first financed by private endowment and in 1914 was taken over by Cook County. In 1917 it was taken over by the State of Illinois and in 1920 was renamed the Institute for Juvenile Research. Originally, attention was directed primarily to study of juvenile offenders, and this has remained an important part of its work, but its field of activity includes practically all types of children's behavior problems (41).

In 1909 Clifford W. Beers started the National Committee for Mental Hygiene as an agency to correct conditions in hospitals for psychotics as he had experienced them. The introduction to his book, *A mind that found itself* (6), was written by William James, a psychologist, but the activities of the National Committee have always been controlled and directed by psychiatrists. By the early 1920's it was recognized that any efforts at prevention of behavior difficulties must start with children. For this reason the National Committee organized and operated, with funds from the Commonwealth Fund, 5 experimental child guidance clinics between 1925 and 1929 (67). The minimum standard personnel for such clinics includes a psychiatrist, a psychologist, and a psychiatric social worker.

The child guidance movement started and has operated under essentially psychiatric auspices although there are accepted child guidance clinics in charge of psychologists. Stevenson and Smith (67) ascribe the beginnings of such guidance work to Healy, who, they claim, introduced the social worker as an integral part of the professional staff. They, incidentally, say: "To some degree, the way had indeed already been blazed by Lightner Witmer's Psychological Clinic established in 1896 at the University of Pennsylvania" (p. 15). This sentence is essentially incorrect because Witmer's philosophy and actual clinic organization [as described by Holmes (40)] do not materially differ from the modern psychiatric child guidance clinic.

From this very brief historical survey of the beginnings of clinical psychology we may itemize the following common characteristics:

1. The interest was rather definitely with children.
2. Children with behavior deviations were the primary concern.
3. The methods used emphasized a well-rounded study of the child as a physical, social, and psychological individual.
4. Diagnostic study was not an end in itself, but a starting point in a reëducational, corrective, or therapeutic program.

The soundness of these characteristics cannot be questioned. They are the essence of Witmer's teaching, but they were lost sight of largely because of the misleading apparent simplicity of mental tests. For a decade and a half the things Witmer stood for were far from being the important elements in activities going under the name of clinical psychology. These earlier ideals were reintroduced from another angle by the child guidance movement, and the last decade has witnessed the efforts of psychologists to regain ground lost during the dark ages of mental testing.

II. Definitions

To search out all of the definitions of clinical psychology that have ever been published would be a tedious and unfruitful task. I have collected around 40, which should be a fair sample. These may be classified into 4 rather specific categories with a few remaining for the inevitable class, " miscellaneous."

The largest group of definitions characterizes clinical psychology essentially as the behavior study of the individual. In some cases the definitions explicitly include treatment, while in others it is implicit or ignored. An early statement by Witmer (**81**), when read in the light of his total position, expresses everything that subsequent definitions do: " For the methods of clinical psychology are necessarily involved whenever the status of an individual mind is determined by observation and experiment, and pedagogical treatment applied to effect a change, i.e., the development of such individual mind." Recent statements by 2 of Witmer's students elaborate the essence of his early formulation. Brotemarkle (**11**) has the following rather lengthy definition:

" Clinical psychology is the art which studies and applies itself to the inter-organized patterns of behavior in the human individual. Gathering its materials and techniques primarily from psychology, it also deals with the materials of education, the medical sciences, the social sciences, and all factors which influence individual personality; and is based upon the results of scientific research in human personeering. Its methodology is the analysis of the competencies, efficiencies, and proficiencies of the individual through clinical diagnoses, tests, and diagnostic teaching. It proceeds through post-analytic diagnosis of the human personality to the prognosis of the future performance of the individual. Its outcome is the accomplishment of the highest level of individual perfectability through the corrective, directive, preventative, and creative production of patterns of preferred behavior in the integration of human personality " (p. xviii).

More specifically he details the following 6 functions: (1) analyze the individual reaction patterns and capacities; (2) discover the etiology of these; (3) interpret their integration in the individual's behavior; (4) study the adjustment of the individual on the basis of the foregoing; (5) outline a program of readjustment; and (6) recommend, assist with, or, on occasion, direct the applications of these methods.

Much more concisely Viteles (**70**) says: " The complete study of the individual from the point of view of his adaptability in diverse situations has been the particular province of the clinical psychol-

ogist " (p. 34). This is elaborated on a subsequent page: " However, the point of emphasis in such clinical study is the individual—an individual looked upon as an integrated organization of behavior patterns—as a ' whole ' personality against a background of objective conditions to which he is called upon to adapt himself " (p. 596).

Such definitions are not unique with students of Witmer. Doll (23) says that clinical psychology " attempts to combine all characteristics, mental, physical, and social, into a composite appraisal which is significant for purposes of individual adjustment in the normal relations of the individual to society and social institutions." In the compilation of statements concerning clinical psychology issued by the Clinical Section of the American Psychological Association (4), Gesell, Hegge, Maxfield, Paynter, Terman, Town, Wallin, G. B. Watson, and Wells all express the same ideas. Incidentally, the reading of this compilation is exhibit "A" for indicating the difficulties individual psychologists have in attempting to define the field which they consider to be the one in which they are working. From the material in the compilation and other investigations the Committee formulated a definition which was adopted as part of its report by the membership of the Clinical Section of the American Psychological Association, thus giving it a semiofficial status. This semiofficial definition is as follows:

" Clinical psychology is a form of applied psychology which aims to define the behavior capacities and behavior characteristics of an individual through methods of measurement, analysis, and observation; and which, on the basis of an integration of these findings with data received from the physical examinations and social histories, gives suggestions and recommendations for the proper adjustment of the individual " (2, p. 5).

This definition shows care in its formulation, and it serves as an adequate statement of the behavior study type.

A second class of definitions which has some reasonable basis in historical conditions, and which is popularly held today, emphasizes the methods of mental or intelligence testing or even makes psychometrics and clinical psychology synonymous. The most recently published definition of this sort has been promulgated by the Institute for Juvenile Research in Chicago (41). This Institute (let us hope not its psychologist) says that " the clinical psychologist is concerned with the evaluation of the child's innate abilities, educational achievements, and special aptitudes " (p. 81). David Mitchell (4) says: " Clinical psychology has to do with the examination of individuals to determine the mental level or ability. It

is primarily a diagnosis of subnormal states " (p. 20). Bronner (4) says: " Clinical psychology . . . describes the field of giving and interpreting psychological tests as part of the study in the field of guidance " (p. 9). These quotations have precedence in Mateer's (51) claim that " the psychological diagnosis of psychopathy must be a diagnosis based upon psychological tests alone. In other words it must be a qualitative analysis of test finding " (p. 287). In a later book (52, p. 3), she makes clinical psychology, mental measurements, and intelligence testing synonymous, although, to be fair, we should point out that on a later page she says that the goal idea of clinical psychology is " more definitely understanding [the individual] and his behavior " (p. 22).

Psychologists who would adhere to such limited definitions of clinical psychology are extremely few, and, we may say, limited in their grasp of what clinical psychology may mean. The definitions would hardly be worth considering except that they appear to express the notions held all too frequently by psychiatrists, social workers, teachers, and laymen.

The third type of definition would limit the activities of clinical psychology to study of the subnormal or abnormal. This idea is included in Mitchell's statement quoted above. Goddard (32) said: " Clinical psychology should mean personal examination of some one who is mentally abnormal, or subnormal, leaving those psychologists who apply the science to determining what the special traits of a normal individual may fit him for, to form a representative group possibly called vocational psychologists " (p. 85). Wallin (73), in 1913, said: " Clinical psychology is concerned with the *concrete* study and examination of the behavior of the *mentally exceptional individual* (not groups), by its own methods of observation, testing, and experiment " (p. 896). It should be noted that these last 2 writers, in later statements (4), have not emphasized the abnormal or subnormal. Modern opinion would entirely agree with Witmer (81) when he says: " I would not have it thought that the method of clinical psychology is limited necessarily to mentally or morally retarded children. . . . Clinical psychology, therefore, does not exclude from consideration other types of children that deviate from the average—for example, the precocious child and the genius. Indeed, the clinical method is applicable even to the so-called normal child."

In the fourth class of definitions we have those which place a medical emphasis on clinical psychology. The close association of

clinical psychology to medicine was early recognized by Witmer (**81**), but he pointed out that it was equally close to sociology and pedagogy. As early as 1915 Haberman (**34**) defined clinical psychology as medical psychology and psychotherapeutics. In a later paper (**35**) he says: " It is for the clinical psychologist (who is physician and neurologist as well as psychologist) to determine: and it is for him likewise, in connection with the pedagogue to suggest the remedy " (p. 862). More recently another physician, Bisch (**8**), defined the field thus: " Clinical psychology is what the words imply—psychology based upon clinical experience. No person should consider himself a qualified clinical psychologist who has not had some medical training, nor should a physician qualify as such who lacks training in psychology " (p. xiii). Ethel Kawin (**4**), whose statement is a little confusing, seems to feel that the chief task of clinical psychology " should be limited for the most part to tests, measurements, and observations that serve as an integral part of a complete clinical examination and treatment that are basically medical or psychiatric in character " (p. 16). These definitions with a medical emphasis represent statements of too narrow bias, similar to the narrowness of the preceding 2 sorts. Such narrowing of the field represents either a personal bias or an unfortunate lack of insight into what clinical psychology really is.

In the fifth, miscellaneous, class of definitions are included a number which, if they had been expanded by their authors, might well be included in one of the other 4 classes. Thus when Pintner (**4**) says, " Clinical psychology is that type of psychology in which help to the individual is stressed " (p. 21), there is implied certain study of the individual. Among the miscellaneous definitions is the entirely useless circularity which Ackerson (**4**) takes from Webster's dictionary, that clinical psychology is psychology " of or pertaining to a clinic." As in its definition of so many technical terms, the dictionary offers no help with this pedantic etymology. (It is interesting to note that Warren's psychological dictionary does not include the term " clinical psychology.")

An attempt to summarize these representative definitions of clinical psychology must first eliminate those which set too narrow limits. Clinical psychology is not psychometrics; it is not medical psychology, nor does it deal primarily with the subnormal or abnormal. The field includes all of these, but it is broader than any of them.

In the broader sense we can agree with Westburgh (**77**) that

" clinical psychology is an art." As I have elsewhere pointed out (**45,** p. 3), each practical art is the application of one or two basic sciences, but in its successful practice many other sciences must be involved. The implications of the definitions classed in the first group above are in agreement with this. In these definitions psychological principles are primary, but it is evident that the contributions of sociology, education, and the medical and biological sciences are also important. The semiofficial definition, using the wording of Gesell (**4**), says that clinical psychology aims to define " behavior capacity and behavior characteristics." The former includes skills, knowledge, aptitudes, intelligence—in short, what the individual does and can do. The later phrase concerns how he does these things, *i.e.* question of motivation, inhibition, emotional disturbances, and so on. The methods of describing this behavior may come from the psychological laboratory, *e.g.* tests, or they may be borrowed from other fields, *e.g.* the case history. In any case, the final job is an understanding description of the individual's pattern of behavior. If these patterns are socially or personally unacceptable, an effort must be made to change them until they are acceptable.

III. Psychological Clinics and Their Work

Another approach to the problem of what clinical psychology is may be made by considering the nature and work of existing clinic organizations. Certain information can be secured by analysis of 2 published directories. Between 1931 and 1934 a committee of the Clinical Section of the American Psychological Association was working on the definition of clinical psychology and a survey of psychological clinic facilities in the United States. Their report, published in 1935 (**3**), includes a directory of psychological clinics which apparently have in common the feature of being directed by a psychologist. In 1936 the National Committee for Mental Hygiene published a directory of psychiatric clinics, compiled by Clark (**19**), which included only those organizations directed by a psychiatrist or at least having a psychiatrist on the staff who was in attendance at specified hours. Together, these lists are probably fairly inclusive for their dates. However, the opening of new clinics continues, so that any list is soon out-of-date.

Some idea of the increase in the number of clinics may be gained by contrasting a list published by Wallin in 1914 (**72, 74**) and the first list mentioned above. Wallin circularized universities, normal schools, and medical schools in 1913 and received replies from 66,

33, and 25, respectively. He classified his respondents into (A) those having bona fide clinics, (B) those giving some attention to clinical psychology but only in connection with courses, and (C) those giving pertinent courses but having no practical clinical work. In Table I are shown the numbers in each of these groups and also the number of the same institutions which had clinics in the 1935 list.

TABLE I

NUMBER OF PSYCHOLOGICAL CLINICS REPORTED IN 1914 AND 1935

	A		B		C	
	1914 Wallin	1935 A.P.A.	1914 Wallin	1935 A.P.A.	1914 Wallin	1935 A.P.A.
University and College.....	15	7	4	1	30	6
Normal Schools............	1	0	2	0	20	0
Medical Schools............	3	0	2	0	8	0
TOTALS	19	7	8	1	58	6

According to Table I there were 19 bona fide clinics in 1914 operating under the auspices which Wallin surveyed; by 1934 only 7 of these were still in existence, although there was a total of 34 clinics under these auspices, as seen in Table II. In Wallin's groups B and C there were 1 and 6 clinics, respectively, reported in 1934. Interestingly enough, the 1 normal school and 3 medical schools which were reported to have psychological clinics in 1914 were not reported at all in 1935. Wallin's figures are, of course, not comparable with the total number reported in 1935 because he surveyed only institutions of higher education; however, it is doubtful if there were many clinics under other auspices at the earlier date.

TABLE II

AUSPICES OF PSYCHOLOGICAL CLINICS 1935 (**65**)

University and Colleges.........................	34
Public and Private Schools....................	17
Social Agencies................................	12
State Department.............................	6
County Department...,.......................	2
City Department..............................	1
Self-supporting	2
Private Endowment...........................	4
Institutions	9
TOTAL	87

The contrast between these 2 sets of figures does not present the total picture. In the time between the 2 studies the child guid-

ance movement was initiated and grew to significantly large propor-
tions. Essentially, this movement was under psychiatric guidance,
but of a nature somewhat different from the psychiatric attention to
adults. In the directory published in *Mental Hygiene* (**19**) there
were approximately the number of clinics devoted to children and
adults shown in Table III as compared with a similar distribution
of the psychological clinics.

TABLE III

AGE CLIENTELE OF BEHAVIOR CLINICS

	Psychological	Psychiatric	Total
Children Only	29	204	233
Children and Adults.	46	391	437
Adults Only.	4	81	85
TOTALS	79	676	755

This brief summary of the data supplied by the 2 available pub-
lished lists of behavior clinics indicates the very decided increase in
this specialty since the first clinic of Witmer in 1896. It is also
evident that children are the chief interest of behavior clinics. This
is very probably wise, because all evidence indicates that adult be-
havior difficulties are based upon childhood conditions, and during
childhood the chances of correcting damaging conditions and unde-
sirable behavior are much greater than in adulthood.

Further analysis of the data from the directory of psychological
clinics reflects the nature of problems dealt with and the relations of
these clinics to other social institutions and agencies, as shown in the
following list:

> Guidance: general, primarily for children.
> Guidance: general, children and adults.
> Departments of Education: school children.
> Juvenile delinquency: courts and institutions.
> Psychoeducational clinics: Schools of Education.
> Children's institutions: orphan homes, etc.
> University clinics: primarily for teaching.
> Hospitals: children's, psychopathic.
> Prisons.
> Social agencies: family and child welfare.
> Speech clinics.
> College student guidance.
> Vocational guidance.
> Family problems.
> Institutions for the blind.
> Institutions for the feebleminded.

This bare recital of the directions in which clinical psychologists are working serves to emphasize its broad usefulness.

Clark's (19) directory of psychiatric clinics includes 676 clinics operated in connection with hospitals, schools, and as independent community agencies. Among this total number were 116 specially designated as child guidance clinics and 34 which had seen at least 100 children during the year reported. According to the record there were over 225 psychologists on the staffs of these clinics. Louttit (48) reported results from questionnaires sent to the senior psychologists of these clinics. Our interest here is in the type of work the psychologists do. Among the 111 psychologists for whom data were received, the types of work shown in Table IV were reported.

TABLE IV

TYPES OF WORK DONE BY 111 PSYCHOLOGISTS IN CHILD GUIDANCE CLINICS

	No. Reporting	%
Psychometrics	96	86.5
Educational Guidance	81	73.0
Vocational Guidance	77	69.4
Diagnostic Interviewing	72	64.9
Remedial Teaching (speech, reading, etc.)	49	44.1
Psychotherapy (therapeutic interviewing)	39	35.1
Teaching	10	9.0
Administration	4	3.6
Social Investigation	3	2.7

In so far as these data are representative of the psychologists' work in clinics they indicate a variety of tasks, some purely psychological, others in the field of remedial education and in social investigation. They indicate the psychologist's concern with securing an integrated picture of the case on the side of diagnosis and his adaptation of many procedures on the side of treatment.

The types of activities engaged in by clinical psychologists may also be found in published descriptions of clinics. There are too many of these to attempt an exhaustive list, but several recently published ones will show the trend.

Witty and Theman (96) analyze a questionnaire survey of 34 psycho-educational clinics and describe practices in the Northwestern University clinic. McBee (53) describes a mental hygiene clinic in a high school, and Frith (30) reports how one city school system makes use of a part-time psychologist. Kelly (42) operates a traveling clinic which serves schools in all parts of Kansas. Sangren (65) demonstrates the use of a clinic as a teaching method in a teacher-training institution. All of these clinics have their primary interest in problems of the school child—retardation, special subject disabilities, social and personal adjust-

ment. Brousseau (13) and Nimkoff (54) both describe clinics organized to deal with problems of marital and family adjustments. Louttit (46) has reported on the work of a university clinic dealing primarily with children which has branches on the university campus and in a children's hospital. Kinder (43) explains the work of the psychologist in an institution for the feebleminded. Fenton (25, 26) and Martens and Russ (50) have described a method of the community coördinating council in child guidance work. This system is perhaps the best so far developed for dealing with behavior problems because it utilizes the services of all community agencies—school, welfare, health, police, etc.— in the study and treatment of the child. Link (44) describes the methods used in the Psychological Service Center operated by the Psychological Corporation.

In addition to these examples of specifically described clinics and clinic organization we may here mention the use of clinical psychology in other directions.

Brotemarkle (12) indicates its value in college student personnel work. Viteles (69, 70) and Rosenstein (63) apply it to industrial problems. Forbes (29) illustrates results from clinical studies of accident-prone automobile drivers. It is an integral part of the classification work in adult prisons (14) and in correctional institutions for juvenile delinquents. The work of the psychologists in connection with study and treatment of psychoses was discussed at a round table held in connection with the second annual meeting of the American Association for Applied Psychology.

Ridenour (62) has analyzed the membership of the A.P.A. and the A.C.P. in New York State and has found that 24% of the individuals included had positions essentially of a clinical nature in clinics, courts, schools, hospitals, and social agencies. She also reports that of 30 clinics in New York City organized for psychiatric service only 16 clinics employed a psychologist. Louttit (48) reported that 13, or 9%, of 150 psychiatric child guidance clinics had no psychologist. These 2 studies indicate that, in spite of the demonstrable value of psychologists in behavior work, there are many psychiatric clinics which feel that this professional group is not necessary.

From this very brief survey of the nature and extent of clinical psychological services as they actually exist today we may isolate the following trends:

(1) The emphasis appears to be largely directed toward children.
(2) Clinical psychology is employed in every type of charitable and humanitarian agency—schools, social welfare, health, institutions for mental defectives, and those for social deviates, etc.—especially those which deal with children.

(3) There is an appreciable attention to adults (which is probably increasing) in the areas of family, industry, colleges, criminology, and psychoses.

(4) The work of the clinical psychologist in either child or adult directions is characterized by the individual being the center of interest.

(5) The possible avenues of psychological service are barely opened as yet. Even in the field of child guidance there are still a very considerable number of clinics which do not employ psychologists, and in the adult field only a beginning has been made.

IV. TRAINING FOR CLINICAL PSYCHOLOGY

Poffenberger (58) suggests that " a clinical psychologist will be a person who can do, and does, what a certain prescribed academic and field training enables him to do." While there is an ideal reasonableness in this suggestion, it cannot be very meaningful in the near future. Only by knowing what tasks the clinical psychologist is called upon to do can we know what to prescribe for training.

As in so many other phases of clinical psychology, Witmer was the first to outline a program of professional training. In 1907 (82) and again in 1911 (83) Witmer described the curriculum at the University of Pennsylvania. This curriculum offered a background in general psychology and culminated in practical courses dealing with the problems of actual children. In essence this is the nature of all subsequent systems. Wallin (72, 75) emphasized the necessity of training in clinical procedures as distinct from purely academic psychology. He also held that work in education (including actual teaching experience) and in certain medical subjects was necessary.

In spite of the specific training needs pointed out by Witmer and Wallin many years ago, graduate schools have not advanced far in the direction of meeting these needs. The Ph.D. degree figures more and more in formal requirements, but, as has been pointed out by Hildreth (39), Louttit (47), and others, this degree varies greatly in the kind of work required for it. Therefore, it does not guarantee that its holder is qualified to do clinical psychological work. Greene (33) reports a study made by, and among the Members of, the Michigan Psychological Association. Respondents were asked to indicate courses which they felt were necessary in the training of a clinical psychologist. We cannot repeat the details of the findings, but a survey showing the trends in suggested number of hours (including undergraduate and graduate) in various major fields is given in Table V.

TABLE V

SUMMARY OF HOURS SUGGESTED FOR
TRAINING

Languages 24
Sciences 20
Sociology 17
Medical 12
Psychology 44
Speech 2
Education 16

While these data are merely suggestive, being based on the responses of a small group, they do indicate the trend toward a four-fold curriculum—psychological, medical, educational, and sociological—suggested by Louttit (45, 47) and implied much earlier in the work of Witmer and Wallin. Goodwin Watson, commenting on the report of a Subcommittee of the White House Conference (78), clearly points out the difficulties when he says: " I see no possible hope for training adequate personnel if we assume they must know everything the doctor has been supposed to know, and everything the psychologist, the educator, and social case worker have been supposed to know. The conclusion toward which the Subcommittee report seems to point in a constructive fashion is a reanalysis of those materials of training, a selection of the crucial and significant parts as rapidly as they can be determined and the reconstruction of curricula " (p. 57). To ask the clinical psychologist to be fully trained in all 4 directions is to ask the impossible. However, Burchard (15) has organized a detailed course of study which includes pertinent subjects in each area. Poffenberger (58), in briefly describing a proposed curriculum, takes a somewhat backward step by confining it entirely to psychology, although he does include a full year of practical internship.

Without doubt any program of training for clinical psychology should include a period of practical experience. Hildreth (39) points out that at the present time experience in actual clinic situations may be more important than academic course work. Shakow (66) has analyzed the values of an " interne year " which he feels should follow academic work. This author indicates 4 values of an internship, especially in an institution: (1) it improves facility in the use of techniques; (2) it saturates the student with clinical contacts; (3) it intensifies the experimental-objective attitude of psychology (which he feels is different from that of the psychiatrist or social worker); and (4) it develops insight and understanding of the attitudes of clinical colleagues.

In summary, we may point out that suggestions for professional training include (1) sound training in psychology, (2) work in medical, educational, and sociological fields, and (3) at least 1 year of practical experience under supervision comparable to the physician's internship. Such a program should be oriented around the individual.

V. RELATIONS OF CLINICAL PSYCHOLOGY TO BORDERING FIELDS

On the basis of evidence so far presented we may say that the clinical psychologist deals with adjustmental problems of individuals. His activities, of necessity, overlap those of several other professional workers, notably in medicine, education, and social work. This overlap has introduced a problem of differentiating clinical psychology from the work of the bordering fields. Because of the complex nature of the work, it is difficult to enumerate specific differentials, but we can survey important comments on the relations between clinical psychology and its nearest neighbors.

Medicine. With the medical profession, clinical psychology finds perhaps its greatest overlap and the most difficulty in attempting differentials. The *status quo* and the difficulties are easily understood. By and large, clinical psychology deals with people in trouble—in a sense they are behaviorally ill. For a long time it has been the province of the physician to deal with physical ills. He has had a background of clinical efforts and a legal position in relation to suffering man. Therefore, it has been a natural consequence that the physician should find himself faced with problems of behavior which have had no physical basis, and with a public demand that he do something about them. Unfortunately, physicians in general are not at all prepared to deal with nonphysical difficulties. This, of course, is not true of the psychiatrists and especially those with modern training and clinical experience in dynamic psychiatry. Nonetheless, the greater portion of behavior or psychological problems is essentially nonmedical, and most physicians are essentially untrained in dealing with behavior difficulties. This combination of facts has resulted in the growth of behavior clinics under medical and nonmedical auspices with a frequent conflict between different groups. While this has been unfortunate, it is probably due to professional jealousy engendered, as Woodworth (97) suggests, because "each group [psychologists, psychiatrists, social workers, etc.] feeling unsure of itself because in possession of only a modicum

of relevant knowledge, has tended to overcompensate for this feeling " (p. 4).

As early as 1917 Cornell (20) wrote a very bitter article denying the psychologists any function in diagnosing feeblemindedness. While he admits that psychologists may give tests, he says that the physicians must make the diagnosis. He explains that tests, especially the Binet, are all right because Binet was a physician. (Actually he had his degree in law!) He then laments that physicians have allowed nonmedical men to usurp the field of mental testing. This paper, while only of historical interest, shows an early medical attitude toward clinical psychologists.

The currently accepted psychiatric notion of the function of the psychologist is shown in the definition of clinical psychology quoted previously from the book on procedures published by the Institute for Juvenile Research (41). Another, and more explicit, expression of this idea is made by Welsch (76), who says:

"An understanding of human behavior requires the study of four aspects of the individual: (1) Physical status, (2) Emotional make-up (feeling, attitudes, loves, hates, jealousies, fears), (3) Intellectual endowment, with any special disabilities or abilities, and (4) Environmental factors. The study and understanding of the first two is the special contribution of the psychiatrist. The third is the realm of the psychologist, including any special vocational guidance or remedial work as indicated by the test results. The fourth is the special study of the social worker . . ." (p. 12).

As a final—and the most naïve—example, we may quote from Sadler (64): " In recent years the general public, more especially psychologists and psychiatrists, have awakened to the fact that psychology deals merely with the phenomena of the intellect . . ." (p. 419).

The untenableness of this position is so evident to anyone who knows even a little about the history of psychology that it would hardly be worth discussing. However, it is so widely believed that some effort should be made to answer it. A quotation from an earlier paper (47) of the writer's states the logical position quite clearly:

"(1) Human psychology—and here we are not concerned with any other kind—is the scientific study of human behavior. It must be noted here that the modern tendency in psychology is away from the behavior of an isolated organism and in the direction of the organism's—i.e., the psychological personality's—behavior in interaction with its environment. (2) Any sort of behavior, normal or abnormal, usual or unusual, good

or bad, individual or group, is a legitimate field for psychological study. (3) The data and principles of psychology may be applied as are the data and principles of any science. (4) One application of such data and principles is to the behavior of an individual to the end of guiding that individual to satisfactory adjustment or of correcting an existing unsatisfactory adjustment. This is the field of clinical psychology."

It is in point to mention here that psychiatry itself has not had a ready acceptance by the other medical specialists. Before the War it was the Cinderella of the medical family; since then, while it has made considerable advance, it is still far from wholly accepted by the nonpsychiatric physician (9). In relation to pediatrics this problem was of sufficient importance for the White House Conference on Child Health and Protection to organize a special Subcommittee on psychology and psychiatry. Its report (78), prepared under the chairmanship of Dr. Bronson Crothers,

" is a careful consideration of the relations of psychiatry and psychology to pediatrics. As only one member of the Subcommittee was not a physician (Dr. J. E. Anderson, a psychologist), it is to be expected that the claims of the physician should loom large. However, this is not a serious matter. The position taken, that the family doctor is closest to the family, and comes first into contact with the problems of the children, is well taken. While it would appear that the Subcommittee would desire all physicians to acquire some specialized training in psychology, they do not appear to feel that the psychologist might get a similar amount of medical training and do the job as well" (45, p. 4).

The following statement made by the Subcommittee may be taken as a mild rebuke to those physicians who deny the psychologist a legitimate part in the study and treatment of behavior problems:

" This Subcommittee believes that the study of an individual distress is the logical concern of the doctor. Those of us who are responsible for 'child guidance' are obviously going to become involved with fields of effort where our status is not clear. Education and psychology are sciences or 'disciplines' with definite traditions and techniques. 'Social science' has a definite meaning to some individuals. When doctors enter these fields they have no right to attempt to lead or to dictate simply because their prestige as physicians gives them an advantage. The attempt to carry prestige beyond the field where it was earned is the cause of most of the confusion which exists. Doctors are flagrant offenders, psychologists have not been guiltless, and teachers and clergy have furnished their share of examples. The medical profession and its attitude are our direct concern. As physicians we can investigate the situation and make our own disclaimers of expert knowledge. At times we should be prepared to lay aside the mantle of

authority and enter the field with all comers. There may be corners of domains of education, psychology, and social science where we can establish positions by earned prestige in a new field" (**78**, p. 24).

The entire report bears the stamp of the same sound, critical attitude shown by Dr. Crothers in a later book (**21**). A quotation from this book nicely sums up the relation of the psychologist to the medical man and especially the pediatrician: "At worst, I think, the psychologist will be recognized as a reliable purveyor of intelligence quotients. At best, his advice will be sought and considered in problems as diverse as those connected with neurological diagnosis and those involved in arranging for convalescent supervision after contagious disease" (p. 167).

While we cannot finally decide the boundaries between psychology and medicine, we can vehemently deny the common psychiatric notion that the psychologist's function is to give tests. From the viewpoint of psychological history we can lay just and logical claim to all behavior problems—emotional, motivational, personality, intellectual, etc.—as long as such problems do not involve purely physical pathologies. At the present time the best method of dealing with behavior problems is probably the open professional coöperation of the psychologist, psychiatrist, social worker, or other persons who have something to contribute to the understanding of the problem. Ability to deal with these problems must be judged on personal qualification rather than on strictly delimited professional labels.

Social Work. The relations of clinical psychology to social work are much clearer than to medicine. While there are individual complaints of usurpation of authority from both psychologist and social worker, little has been written. Mary Richmond's (**60**) definition of social case work is essentially psychological in nature: "Social case work consists of those processes which develop personality through adjustments consciously effected, individual, by individual, between men and their social environment" (pp. 98-99). In so far as this definition represents actual case work—and I believe it does—the professional social worker should have some foundation in psychology. The importance of this is evidenced in Hagerty's (**36**) discussion of the social worker's training.

In 4 papers published in *The Family*, Acheson (1) and Ridenour (**61**) both state that the psychologist's greatest function in social work is in mental testing. Ridenour holds that even at the psychometric level a well-trained worker is absolutely necessary if test results are to be adequately interpreted. With this we agree,

but we feel that the other 2 authors, Peters (55) and Regensburg(59), recognize a still greater value in the psychologist's services. Peters says that " although she [case worker] may express only a desire for diagnosis and prognosis in requesting an examination, she often wants further interpretation of the problem. This may vary from something of a very simple, obvious nature to a quite involved and complicated interpretation and discussion of the total situation " (p. 179). Regensburg goes still further by saying: " The clinical psychologist is not only a psychometrician. He is a professional consultant who must supplement this skill with such knowledge as enables him to understand the client as a total individual in whatever predicament the client finds himself " (p. 201).

Not only does clinical psychology have value for the social worker, but there is a reciprocal value in case work for the psychologist. Acheson (1) is essentially correct when she says that usually the psychologist coming to a social agency is well trained in psychological techniques, but that he lacks training in, and often an appreciation of, case-work techniques. It is just here that graduate training in psychology is lacking and it is from the social work curricula that psychologists must take their cue.

Education. Historically and practically education has been, and must be, concerned with the training of all children ; it must deal with children in groups. This is the very antithesis of clinical psychology which, while it does use teaching as a therapeutic method, is concerned only with the individual child. While modern progressive education is based upon a " child centered school," it is the child in a group rather than the child in isolation. There is no real confusion between the teacher or educator and the psychoclinician. That education has accepted and used clinical psychology is shown in the reports of clinics operated by school agencies (30, 42, 49, 53, 65, 96).

VI. SUMMARY

In this article we have tried, by surveying representative selected literature, to picture the present status of clinical psychology. The findings indicate that modern definitions, the work done in psychological clinics, and the curricula proposed for training are not greatly different from those given 20 or more years ago by Witmer and Wallin. Overenthusiastic dependence upon mental tests has diverted clinical work away from its broader aspects and has put the psychologist in the difficult position of being considered a mental tester by his nonpsychological, professional colleagues. If clinical psy-

chology is to take its rightful place in the family of arts dealing with individuals' problems, its present adherents must achieve a broader concept of its nature, and the training of the student must compass much beyond the academic psychology of the present graduate schools.

In conclusion, we may enumerate certain specific points that have been frequently evident in our detailed discussion.

1. The interest of the clinical psychologist is in the individual considered as a physical, social, and psychological being in the matrix of his environment.

2. The individuals in whom the psychologist is usually interested are those exhibiting mild or severe deviations in behavior. However, there is a growing interest in the guidance of the nondeviating individual to the end of more successful adjustments—academic, vocational, marital, personal, or what not.

3. Historically, and at the present day, the interest is emphatically directed toward children. Nevertheless, there is an increasing number of clinical psychologists directing their professional attention toward the problems of adults.

4. The method of the clinical psychologist is primarily that of an extensive, systematic case study. The emphasis on psychometrics has done harm, but appears to be waning.

5. The aim of clinical psychology goes beyond diagnosis to the planning and carrying out of a program designed to help the individual readjust or make a more satisfactory adjustment.

6. Present training facilities for clinical psychology are inadequate. There is too great an emphasis on academic psychology and too little opportunity for work in the medical, social, or educational fields. Also, the problems of intensive clinical experience have hardly been considered by the training centers.

7. In its relations with medicine, social work, and education, clinical psychology has suffered from academic psychology's aloofness from practical problems. Perhaps the most necessary activity of clinical psychology—and each individual clinical psychologist— is to demonstrate to the bordering professional disciplines and to the lay public that this field has a useful contribution far more valuable than psychometrics alone.

Perhaps in a final paragraph I may digress from the attempt to summarize others' ideas concerning clinical psychology and make my own suggestion concerning the future of this field of endeavor. Three premises may be stated as a starting point: (1) the interest is in the behavioral adjustment of an individual; (2) understanding

of the individual requires knowledges of physical, educational, social, and psychological factors; (3) both diagnosis and treatment require the services of variously trained professional workers. If these 3 premises are critically considered, it is quite evident that the rôle of leader in the problems of behavior adjustment cannot be assumed by the psychologist, the psychiatrist, the sociologist, the social worker, the physician, or the educator, judged solely on the basis of their training. In the best operated clinics today the contributions of each profession are mutually discussed, and a treatment program coöperatively planned. Actually, such a coöperative ideal exists in very few places, and usually some one individual (most frequently a psychiatrist or a psychologist) integrates the various findings. Such an integrator or synthesizer is probably more efficient than a discussing group. It appears to me that for real professional dealing with problems of behavior the future must produce a new specialist. This behavior specialist will be the product of an entirely new curriculum which will include pertinent materials from psychology, medicine, education, sociology, and social work. It may even be necessary to establish a new degree as a symbol of the curriculum. This new professional man will not be expected to do all of the diagnostic and treatment work with behavior problems himself. His function will be to serve as coördinator—integrating the diagnostic findings of the physician, psychologist, social worker, or teacher on the one hand, and on the other using his integrated diagnosis to plan a treatment program in which he will be able to indicate the part to be played by the teacher, the social worker, the psychotherapist, the recreation worker, or others who may be necessary to bring the program into being.

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[3] These 2 books are so important that they must be included here even though they were not published until after this manuscript was completed. The first volume is especially valuable for its critical reviews of new tests and for its book review digest of measurement books.   Dr. Rogers' volume is the first critical evaluation of treatment methods used with problem children.

ACADEMIC PSYCHOLOGY AS A CAREER FOR WOMEN

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The following analysis was initiated by the decision of a woman graduate student to seek an academic career in psychology, inasmuch as she was not interested in a position in the applied fields. The author held out small hopes for success and told her that he suspected that there were much better opportunities for a woman in a career in applied psychology. The student, in order to answer this argument, discovered that more than 250 women, who were Members or Associates of the American Psychological Association, were in academic positions of one sort or another. This number was so much larger than the author had expected that a more detailed analysis of the situation seemed advisable.

The following is the analysis of the entire 2318 Members and Associates listed in the 1938 *Yearbook* of the American Psychological Association, Inc. Although this Association does not include all of the professional psychologists in America, it is certainly the most representative and the oldest psychological organization in this country. In the following analysis, no differentiation is made between Members and Associates.

Of the 2318 Members and Associates of the Association, 1630, or 70%, are men, and 688, or 30%, are women. In making this distinction, it was assumed that all names accompanied only by initials were men, and they were so classified throughout this study. Of the 1630 men, 1228, or 75.3%, list academic positions of one sort or another, and only 402, or 24.7%, list no academic position or no position at all. Those individuals who list themselves as graduate students are included in the nonacademic group. Of the women, 259, or 37.6%, list academic positions, while 429, or 62.4%, are listed in the nonacademic group. Hence one sees that, although there are almost 2½ times as many men as women in the Association, nevertheless there are actually more women than men who are not placed in some sort of academic position. If one is a man, he has 75 chances out of 100 of getting an academic job after psychological training. But if one is a woman, her chances of obtaining an academic position of any rank whatsoever are reduced to less than 40 chances out of 100.

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TABLE I

	University		College		Women's College		Junior College, Teachers' College, etc.		Total	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Professor										
Number	139	16	227	12	25	17	97	19	488	68
% Academic	11	6	18	5	2	7	8	7	40	26
% Total	9	2	14	2	2	2	6	3	30	10
Associate Professor										
Number	53	10	71	7	8	10	10	10	142	37
% Academic	4	4	6	3	1	4	1	4	12	14
% Total	3	1	4	1	0	2	1	1	9	5
Assistant Professor										
Number	74	7	92	7	2	12	10	7	178	33
% Academic	6	3	7	3	0	5	1	3	14	13
% Total	5	1	6	1	0	2	1	1	11	5
Instructor										
Number	72	17	80	7	12	7	32	9	196	45
% Academic	6	7	7	3	1	3	3	3	16	17
% Total	4	2	5	1	1	1	2	1	12	7
Lecturer, Assistant, Research Associate, etc.										
Number	122	55	46	5	3	6	3	3	174	69
% Academic	10	21	4	2	0	2	0	1	14	27
% Total	8	8	3	1	0		0	0	11	10
Academic, but No Rank Given										
Number	16	2	19	3	2	4	13	2	50	7
% Academic	1	1	2	1	0	2	1	1	4	3
% Total	1	0	1	0	0		1	0	3	1
Total										
Number	476	107	535	41	52	61	165	50	1228	259
% Academic	38	41	44	16	4	24	11	19	100	100
% Total	29	16	33	6	3	9	10	7	75.3	37.6

A further analysis of those who are in academic positions will be found in the accompanying table for both men and women. The analysis is made for the grades of Professor, Associate Professor, Assistant Professor, and Instructor. There is a fifth group in which are included Lecturers, Assistants, Research Associates, Research Fellows, and the like. In a final group are placed those cases in which an academic position is indicated but no rank is given. The one exception to this individuation is that persons who described themselves as Head or Chairman of a Department were listed as Professor unless other conflicting evidence was given.

Analysis has also been made in regard to the type of institution in which the position is held. The first group, designated as University, includes only the first 25 institutions found in the table of institutions granting Ph.D. degrees in psychology, reported elsewhere.[1] It was discovered that these institutions were responsible for the training of the very large proportion of professional psychologists. The second group, called College, includes those institutions primarily interested in undergraduate psychology of an academic sort, whether that institution designates itself as a college or a university. Many institutions in this group offer work for the Master's degree but seldom, if ever, give a doctorate in psychology. The third group includes the Women's Colleges of all grades; and the fourth group includes Junior Colleges, Teachers' Colleges, Normal Schools, Business Schools, and the like. For each sex and for every rank and for every type of institution will be found the number of individuals in that category, the percentage of those in academic jobs, and the percentage for the total population for that sex.

For the University group, the actual number of individuals for every rank always favors the men. For example, there are 139 male full Professors in this group as against only 16 women of this rank. This represents 11% of the academically employed men and only 6% of the academically employed women. It represents 9% of the total male population and only 2% of the total female population. In this class of institution, the percentages for the grades of Associate Professor, Assistant Professor, and Instructor are not very different for the academically employed. They are identical for Associate Professor, strongly in favor of men for Assistant Professor, and slightly in favor of women for the rank of Instructor. An entirely

[1] S. W. Fernberger. Statistical analyses of the Members and Associates of the American Psychological Association, Inc. in 1928. *Psychol. Rev.*, 1928, **35**, 450.

different situation is evident for the group including Lecturers, Assistants, Research Associates, etc. Here the percentage of academically employed for women is more than double that for men, and the percentages are equal for the total populations. This is due to the fact that so many women are employed as Research Associates in the several Institutes for Child Welfare throughout the country. As a result of this last group, there is actually a larger percentage of the academically employed women psychologists than men found in the 25 graduate institutions, although actually there are almost 4½ times as many men employed in such institutions.

In the group of institutions designated as College, there is an enormous favoring of men for all grades. This is true for numbers, percentage of academically employed, or percentage of the total population. Actually, more men are employed in institutions of this group than in any other of the types of institution. There are more than 13 times as many men as women in this sort of institution for all grades, and the differences are particularly great for the higher academic ranks.

For Women's Colleges, the percentages for academically employed and for total population are both in favor of women. But there are actually more men than women with the rank of full Professor in the Women's Colleges. The most favorable relative position for women is found in the grade of Assistant Professor in these institutions, where only 2 of the 14 listed are men. Special note must be made of the fact that this group includes the Catholic Women's Colleges, where most of the ranking teachers are women in Orders.

There is no very great difference in percentages of academically employed or total population for the group of Junior and Teachers' Colleges. In actual numbers, there are 5 times as many men as women rated as full Professors, but below this grade the numbers are not so very different.

From a consideration of these facts, one may draw certain conclusions in regard to the relative prospects of an academic career in psychology for men and women.

1. Men have a far better chance for academic employment than women. On the basis of past experience in the American Psychological Association, a man has 75 chances out of 100 of obtaining an academic position, while the chances for a woman are less than 40 out of 100.

2. If a woman succeeds in obtaining employment in an academic institution of "University" type, she has a better chance than men

for employment at the lower grades and an equal chance of rising to the rank of Associate Professor, but less chance of ever becoming a full Professor.

3. Women have relatively little chance of obtaining employment at any grade in institutions designated as Colleges. The numerical superiority and percentage superiority for men is present in all grades, but is particularly marked in the higher ranks.

4. Women have a better chance than men for employment in Women's Colleges for all academic ranks.

5. Women have relatively as good or better chance in Junior Colleges and Teachers' Colleges either for employment or for advancement to any academic rank.

6. A single final conclusion would seem to be that women have much less chance for academic employment than men but that, if such employment is once obtained, they have about as good a chance as men for promotion in Junior and Teachers' Colleges, in Women's Colleges, and in Universities (except to the grade of full Professor in this latter group), but they have relatively little chance for either employment or promotion in Colleges.

BOOK REVIEWS

ADLER, M. Art and prudence. New York: Longmans, Green, 1937.
Pp. xiv+686.

There should be some special motive to account for the publication
of a 1939 review of a book which appeared in 1937, and in this case
the motivation is not difficult to discover. Apparently, few psychologists
are interested either in art or in prudence, for Adler's volume has received
but little attention from psychologists. Lay the blame on the title if
you will. Certainly there is nothing in the title to suggest that the
largest section of the book presents a detailed criticism of the Payne
Fund studies of the movies. Precisely because this is the case, it seems
advisable to disregard the statute of limitations and publish a belated
notice to call attention to this critique.

For our purposes we may pass rapidly over the first, second, and
fourth sections of the volume. The first 93 pages introduce the Platonic
and Aristotelian positions with regard to the place of poetry in the state
and show that criticisms of the arts in later times can conveniently
be subsumed under the one or the other of these approaches. The second
section (96 pages) bears the title: "The Motion Picture as Popular
Poetry." Using the term poetry as a synonym for fiction, Adler here
expounds the thesis that "the motion picture theatre is the theatre of
democracy, and the motion picture is its most popular poetry." Noting
that the movies constitute our only censored art, Adler analyzes and
discusses the charges against them and the claims that are made in their
favor. The fourth section of the volume deals with "cinematics"—the
technique of movie-making as compared with other forms of artistic
creation.

Part III contains the critical appraisal of the Payne Fund studies,
and it is this section which is of most direct interest to psychologists.
The section is the longest in the volume, comprising 187 pages. It
opens with a chapter entitled "Knowledge and Opinion," in which the
author defines knowledge as absolute and opinion as contingent. In
dealing with opinion, the prudent man, he states, must look on both
sides of an issue and seek all information regarding the competing
probabilities. Conveniently, the prudent man may be guided by Adler's
statement that "philosophy is either knowledge or nothing . . . scientific
propositions are intrinsically contingent." Thus, science is only opinion,
albeit opinion of a fairly high order in the case of the natural sciences.

The social sciences can never rank high in the scale of opinion because
"human behavior cannot be reduced to natural causes." "In human
behavior reason is the first cause and . . . the operation of the will as
rational appetite is uncaused except by God." Thus, we are left with
philosophy, which is either knowledge or nothing, and psychology and
its kindred social sciences, which yield only opinion. And to top it off,
"the intrinsic weakness of the study of human behavior *as science* is

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further complicated by the methodological incompetence of most of the attempts which have been made." One gathers from these remarks and sundry others that Mr. Adler holds no very high opinion of those who would deny man freedom of the will, that he is profoundly distrustful of all the social sciences, and that he would advise the prudent man to realize "the impossibility of knowledge about the causes of human behavior."

The critical reader may detect an anachronistic aura about the exposition in this chapter which may lead him to abandon his reading at this point. If he does so, the loss is his, for Adler comes to the point in the next chapter. Because sociopsychological research is only opinion—and not very high-grade opinion at that, the author begins the chapter by citing various unsupported opinions regarding the effects of the movies. Having shown that there are opinions pro and con, he turns to the Payne Fund studies. Here he adopts that most telling of critical methods—that of comparative quotation from various parts of the same study. Apparently, all but one or two of the Payne Fund researchers have been guilty of stating the limitations of their data and then drawing conclusions without regard to the limitations they themselves have pointed out. Adler dips his pen in vitriol and convicts them of this misdemeanor from their own writings.

It would be unfair in a limited review of this sort to mention individual studies by name, for this would involve the presentation of the criticisms out of context. Suffice it to say that one study, in his opinion, "could be dismissed in terms of the authors' direct or implied admissions of the inadequacy of their method, the unreliability of their raw materials and the insignificance of their numerical data." Of another author Adler remarks: "His lack of hesitation in expressing his opinion is equal to his lack of careful analysis, his lack of relevant knowledge." A third is pilloried as "a report of research in which conclusions outrun the data." He speaks well only of two of the studies, and he recants on one of these before he has finished discussing it.

On the positive side, then, let it be said that Adler goes painstakingly over each of the Payne Fund publications, pointing out errors of method or of interpretation which no psychologist can afford to ignore. He may strain at an occasional gnat of methodology, but he discovers enough interpretative camels to grant his essay real importance.

Unfortunately, his writing runs away with him. He is quite unable to detect the mote of unwarranted extrapolation in his own eye, so busily is he engaged in pointing to an all-but-identical beam in the eye of the social scientist. Without condoning the sins of psychologists, one might be justified in calling to Adler's attention such passages as the following:

" I do not know whether the movies through influences more or less indirect corrupt youth and demoralize society, but I do know, without the aid of research, that the profoundly anti-moral and anti-Christian teaching of Professor Peters and all others of his kind does corrupt youth and demoralize society to whatever extent it is successful . . . The corruption of students who have been indoctrinated by social science is plain to any teacher of philosophy . . . If the society in which we live is not already demoralized

by the progressive corruption in our universities during the last half century, it will happen unless the tide is turned."

The Greeks, it is believed, had a word for this type of reasoning. It is unfortunate that so penetrating a critical essay should be marred by blasts of this order. It is likewise unfortunate that Adler's genius at critical analysis should be matched by an equal ability to make the obvious appear profound. When he writes as an historian, his style is lucid and fluent; when he turns critic, his style is coherent and acidulous; but when he becomes philosopher, his writing is verbose and pedantic. If the volume fails to achieve the effects its better parts deserve, one suspects that the fault will lie with the author.

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WAIT, W. T. The science of human behavior. New York: Ronald Press, 1938. Pp. xv+335.

This is a general psychology text, designed for college freshmen, to "bring together the material about human behavior that will most satisfactorily answer the questions that young adults ask about themselves and about those they know." Accordingly, many of the chapter headings are in question form, such as "What Are the Mainsprings of Behavior?" and "What Is the Effect of Experience upon Behavior?"

The book should make very interesting reading for the beginning student, as the author has a smooth and readable style. One who reads many elementary texts often finds them rather monotonous, but in covering this I often found myself losing the mental set of reviewing and reading a number of pages as if it were a novel.

Right at the outset, I might comment that the title itself, *The science of human behavior*, does not seem accurate. The word *science* suggests critical discussion of laboratory procedures and presentation of statistical evidence. Actually, little of this appears. I am not suggesting that it should be included—possibly to interest the freshman student it should not. But, in any case, the title appears to me to be somewhat of a misnomer. In the next place, I wondered if there was so much maturation of the intellect between the freshman and sophomore years that it would warrant the difference between the usual 500–700 pages of fairly technical material and barely more than 300 pages of rather easy reading.

Several chapters were especially good, and some others were a little disappointing. The last three, dealing with "Behavior That Is Abnormal," "Development of Mental Hygiene and Its Application to Everyday Life," and "The Integration of Personality," impressed me as excellent. The author has done an exceptionally fine job of explaining various borderline functional symptoms in a limited space. His selection of cases was interesting and to the point.

But two chapters which were disappointing were two which should have been the best, since presumably the author is writing for a teachers' college audience. These were the chapters on intelligence and learning, which, of course, are central topics for educational psychology. The presentation of intelligence was decidedly too brief, and especially lacking

in educational and vocational applications. The discussion of the effects of heredity and environment was also scanty; this problem not only has theoretical but also wide educational applications. As to learning, I wondered why the author quotes as *the* laws of learning only Thorndike's familiar three principles of readiness, use, and effect. Discussion of transfer, another central educational problem, occupies just two pages.

These shortcomings are more in the nature of too brief treatment of important topics than poorly thought-out or erroneous conclusions. Possibly the whole thing reduces itself to the initial decision of how much space to devote to each topic. It seems likely in this case, as often happens with textbooks, that the author felt that for symmetry he should devote approximately the same space to each topic. Yet there is no legitimate reason why one topic should not receive five times the attention of another. In this instance, most psychologists would probably feel that learning deserves more than seventeen pages if inheritance of traits and family resemblances (almost entirely organic, and only about four pages dealing with psychological traits) is awarded twenty-four pages and perception is given twenty-five.

The viewpoint of the author seems somewhat more on the side of heredity than might be warranted, although this may be more influenced by the choice of material than by the author's actual opinions. Since two of the early chapters deal with heredity and instincts, both necessarily on the hereditarian side, the beginning student might easily be predisposed to keep that set with those aspects of behavior which are much more purely psychological. There possibly should have been a stronger effort to counteract this possibility when those other topics came up for discussion.

These criticisms should not indicate that the reviewer takes as unfavorable an attitude toward the text as might appear. One does not devote much space to pointless praise. As mentioned before, the book is well and interestingly written, and it deals enough with the problems of daily life to arouse and keep the student's interest. Since it is comparatively brief and simple, it strikes me as if its best use would be found in freshman courses, in junior colleges, and possibly even in high schools for students in the upper half of the senior class.

R. W. HUSBAND.

University of Wisconsin.

KELLER, F. J., & VITELES, M. S. Vocational guidance throughout the world: a comparative survey. New York: Norton, 1937. Pp. xiii+575.

This book deals with the existence and nature of vocational guidance as dependent upon social, economic, and political forces operating in national, regional, and community settings. The operation of these forces and the resulting service to communities of national groups are comprehensively analyzed. Guidance is defined, following the definition of the National Occupational Conference, as the function of assisting the pupil to choose, prepare for, enter upon, and progress in an occupation.

Viteles contributes the chapters on psychological methods for the

analysis of the individual, psychological methods in vocational guidance, and guidance in Italy, Spain, U.S.S.R., the Scandinavian countries, Australia, South Africa, China, and Japan. The analysis of occupations, the job psychograph and occupational ability patterns, and suggestions for improvement in methods for occupational research are treated. Included in psychological methods for the analysis of the individual is a sketch of vocational testing in the United States as contrasted with other countries. European countries stress use of the ' successive hurdle ' technique, in which intelligence tests are used first to make gross determination of occupational level which the counselee has a good chance of attaining, and make extensive use of fewer tests for occupational aptitude and proficiency. The United States has been persistent in emphasis on testing the tests, in follow-up studies, and in use of a wide variety of tests in specific counseling bureaus.

Keller contributes the introductory chapter and chapters dealing with vocational guidance in the United States, Great Britain, France, Switzerland, Holland, and Belgium, and the closing chapter on comparative vocational guidance. Organized and scientific vocational guidance, conceived as a community responsibility, is a modern development and has coincided historically with the second industrial revolution. Recognition of the significance for guidance of technological change is an important feature. National programs of guidance are determined by educational philosophies and by the nature of vocational education as well as by social, economic, and political factors.

It is indicated by Keller that guidance in the United States has been "almost exclusively a school activity." It consists of assistance to the pupil, as indicated in the definition mentioned above. This assistance is accomplished by procedures which include the use of school records, aptitude and achievement tests, tryout courses, occupational information courses, personal interview, placement, and follow-up. In Europe, on the other hand, guidance has been initiated by, and is the direct responsibility of, employment exchanges and the psychological laboratories.

The school systems and the employment services of the United States are entering upon the initial phases of a collaborative enterprise in the vocational guidance of youth: the former, by training for occupations, compiling school records and counseling, measuring aptitude and achievement, giving tryout courses and occupational information, placement, and follow-up; and the latter, by counseling, measuring occupational aptitude and proficiency, giving occupational information, placement, and follow-up. While the significant guidance feature of the schools must be counseling and training, the important contribution of the public employment services must be counseling, measurement, and placement. The part of the book prepared by Keller makes no reference to the occupational research program which the United States Employment Service has conducted or to its far-reaching significance for guidance. Viteles makes two references to the development and validation of counseling technique by the Worker Analysis Section of the United States Employment Service.

The Appendix (58 pages) reproduces record forms, questionnaires,

exhibits of typical American and European tests, medical contraindications, and training and miscellaneous guidance material. A 13-page Index is appended. The book is replete with illustrations, tabular summaries, and descriptions of counseling and recording procedures used throughout the world, and contains many documentary references to sources of valuable information which are not to be found in ordinary works on vocational guidance. It is this reviewer's opinion that no other book which presents as much authoritative information on points of view, methods, and trends in vocational guidance without restriction to a geographic area is available.

ROGER M. BELLOWS.

University of Maryland.

GRAEWE, H. Zwillinge und Schule. Erfurt: Kurt Stenger, 1938. Pp. 132.

Dr. Graewe's twin survey is based on a comparison of the school records of several identical and fraternal twin pairs. Their school performances are viewed as "a reaction to the school environment," while the school marks are said "to represent the result of this reaction and to provide the most dependable insight into the individual personality structure, including mental, moral and characterological qualities, temperament, talents, scientific interests, memory, associative ability and emotionality." According to the author the school marks of identical twins must be just and reliable beyond doubt, *since* they are given by the same teachers. It did not occur to him that in such an experimental twin situation the possibility must first be excluded that twins may receive the same marks *because* they attend the same schools and are known to the teachers as being identical.

In spite of the remarkable results of psychological twin experiments as carried out by McGraw, Troup, Newman, and others, no attempts have been made by Dr. Graewe to analyze the basic elements of the individual personality make-up by means of qualitative tests, such as those of Binet-Simon, Rorschach, and Stanford, or to study the relative effect of environmental influences on the personality development of genotypically identical individuals by differentiating between separated and nonseparated pairs of twins. Another, and probably the gravest, fault of the survey is the lack of any systematic procedure in securing average comparative figures for an unselected series of both identical and fraternal twins. Apart from the fact that it is impossible for any reader to calculate for himself the proper intertwin coefficients of correlation, there are not even any statistical data on the number of actually studied twin cases from which the examples as reported in the book have been selected. Therefore, little scientific justification can be derived from the given material as to the author's conclusion that the mental development and the characterological development of monozygotic twins are really identical.

Although I am perfectly aware of the definite differences between an abdicated German emperor of the Middle Ages and an active high school

teacher of present-day Germany, this twin study reminds me a little of the post-abdication efforts of Karl V to construct two clocks completely harmonious in movement and stroke. Of course, since I happen to have been engaged for years in physiogenetic twin research but lack any experience as a watchmaker, I am far from suggesting that an advanced technique in the watch-making profession might not sometime succeed in the construction of absolutely synchronous clocks. It is still less my intention to discredit the significance of biophysiological twin studies in the final solution of the nature-nurture question and of all the other problems involved in the development of the human personality, or even to minimize the biological component in the origin of physically and mentally identical individuals. My personal reflection on the contribution of this book has merely arisen from a general impression that the author's aim to demonstrate the strictly hereditary determination of similar mental attributes in identical twins has been scarcely more successful than the early imperial experiments with the clocks.

Even considering the semipopular style of the book and its limited dedication to teachers confronted with identical twins in their schools, it seems difficult to me to ignore the scientific disproportion between the author's survey of twins and his exalted conclusions, which culminate in the statement that " hereditary predisposition is not fate alone, but most sacred endeavor and obligation." Since this apotheosis of negative as well as positive hereditary attributes should not be hailed even by congenial German critics as a well-formulated assumption, it may be possible for an objective scientific reader to refrain from the primary prejudices of Dr. Graewe's political ideology. However, in view of the complete lack of statistical data on the actual differences between the monozygotic and dizygotic twins of his study, I see no possibility of disregarding the various technical inadequacies in his procedure of analyzing the school performance and the mental personality structure of twins. It may only be said that the least objections are pertinent to those parts of the book which report on the general theories and methods of twin research and merely refer to the results of previous investigators of this subject—provided, of course, that little attention is paid to such occasional lapses as the misapprehended biological concept that " each physical anomaly is necessarily followed by a mental deviation."

The typographical and other technical qualities concerning the external format of the book have impressed the reviewer favorably.

<div style="text-align:right">Franz J. Kallmann.</div>

New York State Psychiatric Institute and Hospital.

Race, H. V. The psychology of learning through experience. Boston: Ginn, 1938. Pp. viii+384.

While reading this book the reviewer was continually conscious of its value as a professional book to which the elementary teacher might turn when perplexed by some problem. He feels that he could unhesitatingly recommend the book to a teacher seeking information about psychologically defensible practices with respect to the whole range of problems that arise in the elementary school. Although the illustrative

material is taken from the elementary school, the issues of educational psychology are presented with sufficient scope to make the book available for students of education at either the elementary or secondary level.

The book is fundamentally an educational interpretation of the psychology of Thorndike for teachers and teachers-in-training, with occasional interjections of the educational philosophy of Dewey. The author has made a frank attempt to coördinate psychology, educational philosophy, and educational method. The result, in the opinion of the reviewer, is a book that is conservative, sound, stimulating, and practical. Teachers who are unacquainted with the best pedagogical practices as based upon the psychological principles of learning, mental development, affective adjustment, motivation, and related subjects can profit by more than a single reading of the work.

Learning is not treated narrowly. In fact, the book is a fairly good treatise on the development of personality during childhood. Practically all of the conventional topics of educational psychology are brought within its scope, as indicated by the chapter headings: " Personality in Relation to Behavior "; " Vital Situations "; " The Nature of Human Behavior "; " Neural Connections "; " Functions of the Brain and Spinal Cord "; " Native Equipment "; " Individual Drives and Motives "; " Social and Mental Drives and Motives "; " Intelligence "; " Attention "; " The Principles and Facts of Learning "; " Trial-and-Success Method of Learning "; " Learning by Rote Association of Ideas "; " Learning by Logical Association of Ideas "; " Analysis and Synthesis in Thinking "; " Reasoning Processes "; " Individual Differences "; " Personality, Emotions, and Mental Health " (three chapters); " Creative Imagination and Aesthetic Appreciation."

Readiness, effect, and *repetition with satisfaction,* together with availability, identifiability, and other Thorndikian principles of learning are given specific application in the teaching and learning of school subjects, as, for example, in spelling and number in Chapter 13 (" Learning by Rote Association of Ideas "), and in language and reading in Chapter 14 (" Learning by Logical Association of Ideas "). The author's treatment in this respect is somewhat similar to that employed by Jordan in his *Educational psychology.*

The book is expository, not critical, in character. It is not without a few statements that are suggestive of psychological naïveté, as: " Some want or interest makes the neurones ready " (p. 140); " Connections are easy to form in proportion as the particular element in the situation is identifiable . . . in such a way that the neurones can grasp and hold the element and do something with it " (p. 148); or " The fighting tendency that becomes socialized and contends against ignorance, vice, and crime may usefully occupy those people who have strong drives for conquest and conflict " (p. 85). Even so, a very eminent psychologist and philosopher once wrote a treatise entitled *The moral equivalent of war.* Whatever the psychologist's reaction to such statements may be, they probably do not trouble the audience to whom the book is addressed.

J. B. STROUD.

The State University of Iowa.

JENSEN, A. S. Psychology of child behavior. New York: Prentice-Hall, 1938. Pp. xxi+664.

If it were possible for one book to cover the entire scope of any science and all its related fields, this one has done so. It begins with a description of the methods of securing data, the position of the child in today's society, and " The Children's Charter." The status of the child is traced from the prehistoric times to the present day. A large section is given over to " Currents in History Favorable to the Child." Needless to say, the ground covered is so enormous that it is possible to refer to any one point only with extreme brevity.

The second part of the book is written from the genetic point of view. The first section deals with the physical, motor, and mental growth of the child, his hereditary traits and native equipment for making responses. These chapters deal not only with experiments in the field of child psychology but also with material from the realm of medicine. Since medical data have been included, it seems odd that anatomical age has been treated so inadequately. The section on glands has been reduced almost to the vanishing point. The description of the use of X-rays is also somewhat brief.

The trend of the discussion on individual differences follows that to which we are more or less accustomed from the work of Freeman and others.

Part III is given over to a discussion of the social reactions of children. It attempts to cover as much ground as do the preceding sections and the same may be said of Part IV, on " Child Guidance."

The author has catalogued a long list of references in each of the separate fields included.

As a source book for material on child development this text would be exceedingly valuable. As a book for classroom use so much ground is covered in such a few words that a student would probably become confused rather than informed.

ADA H. ARLITT.

University of Cincinnati.

SMITH, B. O. Logical aspects of educational measurement. New York: Columbia Univ. Press, 1938. Pp. x+182.

According to the Preface, this book has grown out of an attempt on the part of its author to clarify the meaning of educational measurement for himself. This has led him to a consideration of the nature of measurement in the physical sciences and to an examination of the learning process and its outcomes. The thesis is then developed that measurement in education (and psychology) meets only one of the two fundamental axioms of measurement; *i.e.* the existing scales permit the *ordering* of individuals but do not possess *additive* units. In the quest for equal units by way of statistical manipulations " it has been assumed that addition is made possible by the derivation of equal units, whereas equal units are established by addition " (p. 142). The reviewer finds himself in agreement with this verbal and logical knockout of those who

claim to have established equal units in mental measurement. Those who have been skeptical of the equality of " equal " units will find herein some potent arguments to bolster their skepticism. The author admits the usefulness of present scales; the mercury thermometer is useful, although its units are not additive.

The first four chapters seem a bit oversimplified—hence tedious to read; Chapters V and VI, on the logical aspects of validity and the relationship between performance and validity, are somewhat lacking in conciseness and pointedness; the last three chapters are more succinct. The entire argument could be developed in one-third the space, but perhaps the intended audience will not be so concerned about verbal economy.

QUINN McNEMAR.

Stanford University.

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NOTES AND NEWS

Dr. W. A. Bousfield, formerly instructor in psychology at Tufts College, has been appointed to the headship of the department of psychology at Connecticut State College, with the rank of assistant professor, as of February 1, 1939. Dr. Bousfield succeeds Dr. E. Lowell Kelly, who is at Purdue University as guest professor of psychology for the current semester. At the same time Mr. Leonard W. Ferguson, formerly research assistant at Stanford University, joined the department at Connecticut State College as instructor.

Since Japan's military occupation of Peiping, the National Library of Peiping has set up an office at Kunming, China, under the directorship of T. L. Yuan, in order to meet the needs of Chinese scientific scholars. The director has sent in an appeal for books and periodicals of all kinds, old or new, and is especially desirous of receiving from American scientists complete sets of their various reprints. Donations may be sent to the National Library of Peiping, in care of the International Exchange Service, Smithsonian Institution, Washington, D. C., from which point they will be shipped to China.

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